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BUREAU OF BUDGET AND FINANCE

VOLUME NO. 3

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EXPLANATORY NOTES

OF

INCREASES, DECREASES, AND CHANGES IN LANGUAGE

IN THE BUDGET FOR THE

DEPARTMENT OF AGRICULTURE

FOR THE

FISCAL YEAR ENDING JUNE 30, 1938

AND OF

WORK DONE UNDER EACH OF THE APPROPRIATION ITEMS

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BUREAU OF BIOLOGICAL SURVEY

(a) GENERAL ADMINISTRATIVE EXPENSES

Appropriation Act, 1937.....	$95,000
Budget Estimate, 1938.....	110,000
Increase.....	15,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
General administration and business service.....	$79,467	$95,000	$110,000	+ $15,000(1)
Unobligated balance.....	128	- - -	- - -	- - -
Total appropriation.....	79,595	95,000	110,000	+ 15,000(1)

INCREASE

(1) An increase of $15,000 to provide for the business administration of the Bureau. The present appropriation is inadequate to meet the demands of administrative work. The volume of this work has greatly expanded from year to year since 1933, with only a comparatively small increase in funds to meet the situation. In the meantime several million acres of new refuge areas have been and are being acquired through the medium of direct purchase with emergency funds, creation of refuges on public lands by Executive order, and by transfer of areas from the Resettlement Administration. More than 50 new refuges created under the Migratory Waterfowl Restoration Program were ready for administration on July 1, 1936, and numerous additional migratory waterfowl refuges and big-game ranges will be ready during the fiscal year 1938. All of these added responsibilities reflect increased work from a general bureau administration and business standpoint. Of the increase recommended, $14,300 will provide for 9 employees in the lower salary grades whose services are greatly needed to keep pace with regular bureau activities in accounting work, auditing, purchase and accountability of property, and mail and correspondence file functions; and $700 will be used for necessary supplies and equipment for the increased personnel.

WORK UNDER THIS APPROPRIATION

This appropriation provides for the general administration, under the Chief and Associate Chief, of the research, control, regulatory, and service activities of the Bureau; and business administration, including fiscal and accounting matters, personnel, property, mail and files, and the coordination of divisional activities. This appropriation is necessary to provide for the payment of salaries, traveling, and other expenses of the general administrative force of the Bureau and of the various units thereunder, for the purchase of supplies and equipment, and for the maintenance expenses of the various units.

(b) FOOD HABITS OF BIRDS AND ANIMALS

Appropriation Act, 1937	$60,640
Budget Estimate, 1938	75,640
Increase	15,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Investigations of economic relationships of birds and other animals	$39,249	$40,073	$55,073	+ $15,000(1)
2. Investigations of bird depredations and methods of control	14,131	14,658	14,658	- - -
3. Development of methods of improving and propagating food and cover for migratory bird and upland game areas	5,900	5,909	5,909	- - -
Unobligated balance	1,360	- - -	- - -	- - -
Total appropriation	60,640	60,640	75,640	+ 15,000(1)

INCREASE

(1) An increase of $15,000 to provide for further cooperation in food-habits investigations with public agencies now engaged in wildlife work. This appropriation, never adequate, has been reduced 17 percent in five years from the amount available in 1932.

In nearly all cases the most important relationship animals have to man is through their food habits. Some of their relationships are beneficial while others are highly injurious. The first requisite of game management is a determination of the food and feeding habits of the birds or animals considered. Without this information their increase or perpetuation may be difficult, if not impossible. It is only through possession of adequate information on food habits that we can intelligently define public policy toward wildlife and wildlife management. There are 1,420 species and varieties of birds that frequent the United States, and of these we have made fairly complete to excellent food habit studies of some 250. There are also about 670 species of mammals and nearly 150 species each of reptiles and amphibians occurring within our borders. These all have a bearing on human life and happiness and some are of tremendous economic importance. Without a study of their food habits we can not develop economic and practical plans of management. The extension of food-habits research is needed not only to bring forth the virtually unknown economic significance of the many bird species as yet unstudied and the mammals, reptiles, and amphibians that have been so largely neglected, but also to revise earlier studies

based on insufficient material or that have lost their validity because of changes in agricultural or other conditions. Research into the food habits of wildlife must be kept abreast of current developments.

The increase requested will include special cooperative investigations on the comparative nutritional values of the various wildlife foods; the food preferences and requirements of big-game animals, particularly the white-tailed deer, mountain sheep, moose, and antelope; and investigations of proposed mosquito control projects, determination of the effects they are likely to have on the wildlife resources of the areas concerned, and the devising of means by which mosquito-control operations may be carried on without causing undue destruction to marsh and aquatic wildlife habitats and to the food supplies of many important birds and mammal species. Better correlation of mosquito-control operations with wildlife interests are imperative. The additional funds requested will provide technical laboratory assistance to handle the identification of wildlife foods and the detailed examinations of stomach contents of birds and mammals necessary for an accurate appraisal of food preferences and tendencies.

The greater significance attached to wildlife in modern public recreational programs and the increasing interest in hunting as a sport have increased many fold the demands for information on food habits of wildlife species. This information is of vital importance to all agencies, Government and otherwise, concerned with wildlife administration. Many more requests for assistance in solving problems in management of wildlife foods are made by State institutions, universities, and game organizations than our limited force can possibly comply with.

Definite agreements are in existence between the Bureau of Biological Survey and the several Federal agencies engaged in managing Government-owned lands for rendering assistance and supplying technical information on problems in wildlife administration. The Forest Service, Soil Conservation Service, National Park Service, and the Bureau of Fisheries all count heavily on utilizing technical information on wildlife food problems gained from investigations conducted under this project. The Biological Survey itself makes practical application of all food-habits investigations, not only as a basis for determining Bureau policies with respect to wildlife in general, but also as a basis for improving wildlife refuge lands under its administration. Increasing wildlife and game yields on Government-owned lands is now one of the prime objectives of the respective land-managing agencies. To accomplish this a detailed knowledge of the needs of the various species of wildlife is a necessity. Among the most important problems to be dealt with is the maintenance of proper and adequate food supplies. A great deal of technical information on wildlife food habits and food preferences must be obtained and made available for the effective development and utilization of wildlife on public lands.

The work conducted under this project is technical in nature, and no similar set-up exists in the various State conservation departments nor in any of the other Federal agencies engaged in wildlife administration.

The various land-managing agencies must have an adequate basis for determining policies with respect to the management of wildlife food resources on their respective land areas. An effective cooperative program

at this time will produce much necessary data on the food habits of wildlife, and the findings will have wide application both on Federal and State-owned lands. Expansion of work under this project to meet the needs of the many groups seeking data on the food habits of game and other wildlife species will prevent costly duplication of effort in the various Government agencies now engaged in wildlife management and center activities involving wildlife food problems under one bureau.

WORK UNDER THIS APPROPRIATION

General.--Work under this appropriation embraces the detailed study of the food habits of native wild birds and animals for the purpose of determining their relationship to agricultural and other interests. Species of birds, mammals, amphibians, and reptiles having beneficial food habits are made known, their protection and increase urged, and information as to methods of attracting and increasing their numbers published. Studies, essential to the satisfactory conduct of game management projects, are made of the food habits of game species, of methods of propagation, of the character of the environment for supporting the maximum numbers and the possibilities of its improvement. Methods of propagating preferred species of food and cover plants are studied and means of controlling undesirable and competing plants devised. When it is determined that species of birds or animals have destructive habits studies are made to determine the extent and seriousness of the damage and methods of control or preventive measure are recommended. Extensive files on the economic relationships of foreign birds and animals are maintained as an aid in the determination of departmental policy with respect to the importation of foreign species.

Information on food habits, methods of attracting birds, propagation of game birds, propagation of food and cover plants, and related subjects is published in various popular and scientific articles and also made available to the public through circulars, leaflets, and bulletins.

1. Investigations of Economic Relationships of Birds and Other Animals.--The work of this project is vital to a proper understanding of the economic status of various species of birds, mammals, and reptiles as they relate to agriculture, horticulture, and forestry. Investigations and research into the food habits and cover requirements of the various wildlife species are a fundamental necessity in both appraising their economic status and in finding means of encouraging or discouraging their presence in a given area. On the basis of such research, means are devised for the improvement of natural food and cover conditions for beneficial species. These data form the basis for a determination of policies pertaining to the protection or control of the various wildlife species. The Migratory Bird Treaty Act, as well as other Federal and State legislation pertaining to the protection of bird life, is based on this information. To meet constantly changing agricultural conditions and to obtain necessary information on the economic status of species not yet studied and also to aid in the administration of the Migratory Bird Treaty Act, this project is vitally necessary. Wildlife research, of which food habits studies are fundamental, is the first step in order to obtain the maximum use of agricultural lands and to obtain the greatest use of the public domain.

During recent years there has been a rapidly growing public demand for information pertaining to bird life. Public interest in the preservation of wild animals and birds is also shown by the increase in local, State, and Federal funds appropriated for the purchase of wildlife refuges.

2. Investigations of Bird Depredations and Methods of Control.--Serious losses are caused by depredations of birds throughout the country, and investigations are necessary to determine the need for and extent of control, as well as to develop effective and selective methods for this purpose. This information is necessary to serve as a basis for the issuance of permits to destroy migratory game birds that are responsible for damage. Investigations often reveal simple and effective preventive methods that make extreme measures of control unnecessary. Scientific investigations establish with certainty the species of birds involved in reported depredations and thereby destruction of innocent species is frequently averted. In some sections it is virtually impossible to raise certain needed crops without some control or application of preventive measures. Research and experimentation are becoming increasingly necessary to control gregarious species, such as the European starling, that roost on buildings and trees in urban centers.

Responsibility for control of migratory species is, under the terms of the Migratory Bird Treaty Act, an obligation of the Federal Government. In the interest of wildlife, Federal guidance and cooperation with State and local Governments in directing control are urgently needed.

3. Development of Methods of Improving and Propagating Food and Cover for Migratory Bird and Upland Game Areas.--The development and maintenance of an adequate supply of food and cover is one of the first essentials of good wildlife management, and it is to this end that funds under this project are devoted. Efforts to restore favorable conditions for game species and other forms of wildlife require detailed knowledge of methods and means for maintaining adequate food supplies at all seasons and the development of proper cover types to insure balanced habitats for every month of the year. For the restoration of waning species of birds and animals and for the perpetuation of all species of wildlife the studies conducted under this project are basic and indispensable.

The work not only involves fundamental research in planting and propagation of desirable wildlife foods, but also includes studies to ascertain means of controlling undesirable or worthless plants which compete for dominance in wildlife habitats. Disease, climatic, and other factors frequently completely wipe out food resources from important wildlife areas. Investigation to determine the best means of restoring food supplies in such areas is an important phase of the work conducted under this project.

The establishment or restoration of a game species in sporting numbers is not only a boon to the American sporting public, but may also be an economic factor of major importance. Worn-out farm lands may be made productive through proper management practices. The restoration and abundance of any species is primarily based on making available appropriate food and cover.

(c) FUR RESOURCES INVESTIGATIONS
(Formerly "Production of Fur-Bearing Animals")

Appropriation Act, 1937.....	$77,612
Budget Estimate, 1938.....	66,000
Decrease.....	11,612

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase or Decrease
1. Fur-animal restoration and production investigations	$12,625	$11,416	$21,304	+ $9,888(2)
2. Breeding, feeding, and management investigations in fur-animal production (Saratoga Springs, N.Y.).	16,036	37,560	16,060	-21,500(1)
3. Breeding, feeding, and management investigations in rabbit production (Fontana, Calif.).....	11,997	12,366	12,366	- - -
4. Investigations of diseases of fur animals.....	16,078	16,270	16,270	- - -
Unobligated balance.....	376	- - -	- - -	- - -
Transferred from "Migratory Bird Conservation Refugees".	-1,000	- - -	- - -	- - -
Total appropriation.....	56,112	77,612	66,000	-11,612

INCREASE OR DECREASE

The net decrease of $11,612 in this appropriation consists of a decrease of $21,500 due to the dropping of a nonrecurring item and an increase of $9,888 as follows:

(1) A decrease of $21,500 in Project 2, "Breeding, feeding, and management investigations in fur-animal production", due to the dropping of the nonrecurring item in this amount provided in the 1937 Act for the purchase of the Fur-Animal Experiment Station at Saratoga Springs, N.Y., and the erection of buildings at this station.

(2) An increase of $9,888 for the study of muskrats and other fur-animals on theBlackwater Refuge, Maryland. The muskrat which is found in practically every state is the most important fur-animal in the United States, the catch being normally twelve to thirteen million skins annually. The supply is becoming alarmingly less each year. Proper methods of restoration and conservation can be intelligently administered only after fundamental facts are known, such as gestation period, size of litter,

number of litters per year, etc. The Blackwater Refuge producing on 8,000 acres of natural marsh 20,000 skins annually, is a natural laboratory where fundamental information can be secured under controlled, observable conditions as to the carrying capacity per acre, extent of breeding season, prime-fur periods and other pertinent information. These facts are not known at the present time. This information is also needed for all our native fur-animals, as breeding and gestation periods are not known; prime-fur periods have not been established by scientific methods; and practically nothing is known about the structure and growth of the embryo in fur-animals. Facilities at the Blackwater Station constructed under emergency programs are available for such studies and a cooperative study with the Carnegie Institution of Washington to determine the embryological development of fur-animals should also be resumed in connection with this work. At the Blackwater Station it is proposed to study also the effects of climate, latitude and altitude on the production of minks and domestic rabbits for food and fur by direct comparison with results at the U. S. Fur-Animal Experiment Station, Saratoga Springs, N.Y., and the U. S. Rabbit Experiment Station, Fontana, Calif. A knowledge of the possibilities of producing good fur under these conditions is of considerable importance and can easily be determined in conjunction with the muskrat experimental work.

CHANGES IN LANGUAGE

In order to more adequately describe the work being carried on under this appropriation, the language of the item has been changed to read as follows:

> [Production of fur-bearing animals] <u>Fur resources investigations</u> For investigations, experiments, demonstrations, and cooperation in connection with the production and utilization of [fur-bearing] animals [raised for meat and fur, in the United States and Alaska,] <u>the pelts of which are used commercially for fur</u>, including [not to exceed $21,500 for the purchase of the Fur-Animal Experiment Station at Saratoga Springs, New York, and] the erection of necessary buildings and other structures [thereon], $_____.

WORK UNDER THIS APPROPRIATION

<u>General</u>.--The work under this appropriation consists of research in connection with the production, conservation, and utilization of fur animals, including rabbits for meat and fur, and the dissemination of this information through bulletins, periodicals, and leaflets to those conducting these enterprises. Methods employed in the production of fur farms and protected areas are investigated and studies are made of methods of breeding, feeding, and handling fur animals in captivity on farms. Research is conducted in the diseases of fur animals and rabbits to ascertain causes and develop methods of treatment and prevention so as to minimize losses to breeders from such causes. A fur-animal experiment station is operated near Saratoga Springs, N. Y., and a rabbit experiment station is maintained at Fontana, California. From the results of studies conducted at these stations recommendations are made for the guidance of fur farmers and fur tradesmen.

1. Fur-Animal Restoration and Production Investigations.--The objects of this project are: (1) In view of the commercial importance of fur in industry, to emphasize the need of maintaining the supply of raw material; (2) to explain methods by which this supply may not only be maintained in quantity but improved in quality; and (3) to conduct research in the field, laboratory, and on experimental farms in the production of fur animals. Results are obtained by conducting complex and comprehensive experiments designed to determine fundamental principles of fur-animal production and fur utilization. The researches made include (a) feeds and feeding; (b) genetics; (c) embryology; (d) fur technology; (e) economic problems in management and operation; (f) fur cleaning and storage; and (g) statistics. Surveys are made of areas in which fur animals are found naturally, also adjacent areas of privately or Government-owned lands, to determine the status of these animals and their relation to other forms of wildlife, the advisability of restocking, methods of trapping alive for restocking, and adjustment to other forms of wildlife.

Our fur resources are dwindling at an alarming rate. The restoration and conservation of this valuable resource yielding an annual income of $65,000,000 mostly to farmers and farmers' sons, can be satisfactorily accomplished only when most of the fundamental facts of breeding, gestation, and prime-fur periods of all our fur animals are known and the public is made aware of the extreme necessity for conservation with proper use. The open seasons for taking fur animals have been and still are established by hit-or-miss methods and not by scientific findings. If scientific data were available for the periods mentioned above and protective laws were based on such information, the numbers and quality of fur animals taken annually would increase rapidly.

The inadequate supply of wild-caught furs is being partially corrected by fur farming, particularly with reference to silver foxes and minks. Raising fur animals is an important and valuable farm operation, not only because it supplements the natural supply but because the land utilized is usually of little value for crop growing. Fur farming is established in 35 States and has become a permanent addition to agricultural development, and it is not in competition with any other type of farming. There are approximately 20,000 fur farms in this country with an approximate investment of $60,000,000. The industry is represented by 3 national, 15 regional, and 16 State associations. Fox farmers harvested 200,000 silver-fox pelts in 1935-36, and the total value was approximately $8,000,000. Adequate scientific feeding and breeding information is most essential in order to protect the new investor and to assist those already having millions invested in fur-farming enterprises.

2. Breeding, Feeding, and Management Investigations in Fur-Animal Production (Saratoga Springs, New York).--Work under this project is chiefly research in feeding, breeding, and handling fur animals in captivity. Experiments are conducted with various species to determine the most satisfactory methods of raising fur animals in captivity; to ascertain conditions under which the various species can be raised profitably and produce good fur; to develop improved strains by selective breeding; and to learn the breeding, gestation, whelping, and prime-fur periods. The station is not operated as a farm for commercial profit through the sale of either breeding

stock or pelts but all energies are directed to developing economical methods of producing fur of fine quality. This is accomplished by conducting experiments in feeding, breeding, and management with the various species of fur animals. Observations are also made on fur farms in the United States and foreign countries. The surplus animals at the station are pelted, but the proceeds from the sale of skins are deposited in the United States Treasury and are not available for expanding the work of the station. No live animals are sold for any purpose.

3. Breeding, Feeding, and Management Investigations in Rabbit Production (Fontana, California).--Work under this project consists of research to develop improved methods of breeding, feeding, housing, management, and judging rabbits for the purpose of assisting those engaged in the business to produce profitably meat and fur of fine quality; to produce rabbit meat so economically that it can be sold at a price that will be well within the range of the consumer; to improve the quality of fur so that it will be in demand by the fur trade; and to determine the relative value of rabbit manure in comparison with other manures.

Carefully planned experiments in the feeding and breeding of rabbits are conducted at the Fontana station. At present the specific experiments have for their purpose the determination of the feasibility of using whole grains in rabbit feeding, relative value of various protein supplements, adaptability of selective self feeder, possible nutritional causes of so-called "bloat" responsible for enormous losses to rabbit producers, development of a superior strain of breeding rabbits, and various factors conducive to production of better skins adaptable to furriers' use. The experiments are progressive and so outlined as to render the most service toward solving the current problems of rabbit producers.

Many million pounds of domestic hutch-raised rabbit meat are produced annually in the United States. Every State raises some, but in many sections of the country their real worth is not yet appreciated. Expansion on a sound yet conservative basis is now assured.

This is a cooperative undertaking with the Fontana Farms Company and the local rabbit breeders' organization. The equipment furnished by the Fontana Farms Company includes a five-acre tract of orange grove, administration building, with offices and accommodations for laboratories, a residence for the director and his family, and various open and closed types of rabbit houses. The rabbit breeders donated the original stock. Closely cooperating with the station are the Fontana Farms Company, national and State organizations, and scientific societies and institutions, as well as agricultural colleges whose object is to develop rabbit raising.

4. Investigations of Diseases of Fur Animals.--The work under this project consists of investigations of diseases of fur animals and diseases of rabbits. Fur producers are seriously hampered in the conduct of their operations by sudden and extensive outbreaks of infectious diseases. Since most of these diseases are new and not fully understood in other animals, intensive research intended to reduce losses from infectious encephalitis and the salmonella group of organisms is being conducted. Much of this

research must necessarily be done in a well-equipped laboratory, and the facilities of the Medical School of the University of Minnesota are utilized for field headquarters in the Central States. With the development of the Biological Survey's portion of the Beltsville Research Center, a portion of this work can be done at that place. A laboratory is also maintained in California for disease studies. Research is conducted in conjunction with cooperating institutions for the reduction of abnormal losses in fur animals so that the fur resources of the country will not be seriously depleted.

(d) BIOLOGICAL INVESTIGATIONS

Appropriation Act, 1937	$138,149
Budget Estimate, 1938.....	153,149
Increase.....	15,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Life-history, taxonomic, and distributional studies of wildlife.....	$37,417	$37,971	$37,971	- - -
2. Game management surveys.....	7,980	28,000	28,000	- - -
3. Research in wildlife management (cooperative).....	40,830	42,000	42,000	- - -
4. Investigations of wildlife resources of Alaska.....	11,344	12,690	12,690	- - -
5. Research in forest wildlife relationships.....	15,394	15,738	30,738	+$15,000(1)
6. Investigations of diseases of wildlife (other than fur animals and birds).....	2,421	1,750	1,750	- - -
Unobligated balance.....	2,763	- - -	- - -	- - -
Total appropriation.....	118,149	138,149	153,149	+ 15,000(1)

INCREASE

(1) An increase of 15,000 for expanding studies in forest wildlife relationships under the McNary-McSweeney Forestry Research Act. This Act authorizes an annual appropriation of $150,000 for researches in forest wildlife relationships. The amount appropriated for this purpose in 1937 is $15,738, which is a reduction of 37 percent below the amount available in 1932 for these important studies. This fundamental work on the relation of wildlife to forests, grazing ranges, and watersheds includes the determination of ways and means for the production on forest lands of valuable species of game and fur-animals and investigations of beneficial or harmful

relationships of these and other animal forms to forest and range production and protection of watersheds. Vigorous prosecution of this investigational program is essential to the profitable administration, development, control, and use of wildlife on forest and range lands and to the adoption of sound management practices. At present there are 3 stations, located in Minnesota, Mississippi, and California, conducting research in forest wildlife relationships. An increase of $15,000 is needed to provide 3 additional stations, to be located in Connecticut, Oregon, and Pennsylvania or North Carolina to enable the Biological Survey to render more adequate assistance in the solution of forest wildlife problems.

WORK UNDER THIS APPROPRIATION

General.--Field and laboratory investigations are made of the distribution, migration, classification, life history, and relations of wild animals and birds and of the natural life zones of the Continent. This work provides the sound basis of scientific facts required for use in the regulatory, economic, educational, and other work of the Bureau. It includes a special study of the relationships of wildlife to forest and grazing ranges, including investigations of game and fur-animals as sources of profit on marginal or other lands and in Alaska, and investigations of the wildlife resources of Alaska, with particular attention to game species and fur-animals and to the muskoxen introduced into the Territory. The continuance of these investigations is essential as a basis for effective conduct of the scientific, educational, control, and regulatory work of the Bureau.

1. Life-History, Taxonomic, and Distributional Studies of Wildlife.--The work conducted under this project is for the purpose of procuring and publishing definite information concerning the classification, habits, distribution, and relationships of birds and animals of the United States and its possessions. This information is needed to assist in the conservation of valuable species, the control of harmful animals, and the development of sound management and administrative practices. These field and laboratory investigations supply information which is constantly desired by institutions and individuals throughout the country, as well as by Government departments, and much of the work of the entire bureau is based upon results of investigations conducted under this project. The information obtained and furnished by this project is necessary not only for proper determination and administration of wildlife policies, but also in studying the relations of wildlife to agriculture, stockraising, forestry, and public health.

2. Game Management Surveys.--Studies are made of game and fur-animals on national forests, wildlife refuges, and other federal lands, and also by applicable laboratory research, as a basis for plans to increase the production of these valuable products as a supplementary land crop. Information is obtained regarding present numbers of these species, their food and cover requirements, feeding and breeding habits, and the relationship to other species and to their environment, to livestock grazing, and to other agricultural practices in the use of land to obtain maximum production for food, fur, and recreation. The object is the preparation of management programs that will make possible maximum production, sustained yield, and profitable use of these wildlife resources as an annual crop on

Federal-owned lands and to determine principles of wildlife management that may be applied on State and private lands in the restoration and maintenance of sufficient production to meet the increasing recreational and industrial demand. Increased and insistent demands for technical assistance and guidance in working out management practices and programs are coming from all agencies of the Federal Government responsible for land administration and from State game commissions, conservation agencies, State planning boards, and farmers' organizations. The information is also required by the Biological Survey for use in establishing and managing its comprehensive system of wildlife refuges. Practical and efficient handling of wildlife can be developed only after adequate field surveys of big-game animals, upland game, fur-animals, and other wildlife resources of the specific areas of forest and grazing land and the correlation of wildlife production with other local land uses. This research provides concrete management programs and practices for the building up of our wildlife resources.

3. Cooperative Research in Wildlife Management.--The work conducted under this project is based on a plan for cooperative effort between the Biological Survey, the land-grant colleges, the State game or conservation departments, and the American Wildlife Institute in carrying on scientific research, practical demonstration, and educational work in wildlife problems in the principal natural wildlife regions of the United States. The leader of each unit is an employee of the Biological Survey who works in cooperation with these agencies.

Research studies on specific problems are providing a scientific basis for wildlife management in those natural wildlife areas of the United States where units are now established. While the work is comparatively new, the present units are already furnishing scientific information helpful to game, forestry, and agricultural administrations for sound management and use of game species.

The first underlying objective throughout the whole program is to conduct the work in such a manner that investigations undertaken and results obtained, management practices arrived at, and recommendations made will gear into regular land use for agriculture, grazing, and forestry practices and will be practical. To this end cooperation is secured from such activities as forestry, farm economics, farm management, range management, and soils and crops. The cooperating units not only deal with agricultural lands but have problems peculiar to forest wildlife and to animals of the open range.

The second fundamental objective of the work is to translate the findings of the investigations into actual management object lessons as rapidly as results warrant. To this end every present regional unit has under way one or more demonstration areas on both publicly-owned land and privately-owned land where the application of practical measures is being worked out.

The third objective is to see that investigational results and demonstration work are carried to the people through their game administrations and through the county agents, Smith-Hughes groups, 4-H Clubs, etc.

At least five of the units are now using part time of forestry and poultry extension specialists for such work and one unit has a full-time wildlife extension specialist.

4. Investigations of Wildlife Resources of Alaska.--The work undertaken under this project consists of studies of the game, fur animals, and other interesting and valuable species native to the Territory of Alaska, of restocking and management possibilities for valuable wildlife, of the food resources available for wildlife, and of the relationship of grazing and browsing animals to the welfare of the vastly important wildlife resources of the Territory. Management plans for guidance in administration are being developed based on the results of these investigations.

5. Research in Forest Wildlife Relationships.--Intensive work on the relation of wildlife to forested areas is being conducted in cooperation with the Forest Service at the three research stations set up under this project in Minnesota, California, and Mississippi. This work has been spread insofar as possible to the States surrounding these stations where the environmental factors are similar. Investigations are under way regarding the intricate relationships which exist between plants, animals, and birds and their relationship to domestic animals maintained on the areas. Such problems as the role of rodents and birds in forest reproduction, both by destruction of seeds and seedlings and as planting agencies, the range-carrying capacities for big-game animals such as deer and elk, and the competition that exists between various kinds of wildlife and domestic stock are being studied.

6. Investigations of Diseases of Wildlife (Other Than Fur Animals and Birds).--Under this project investigations on diseases of wildlife, such as rabbits, hares, big game, and other species, are conducted. This work is done largely in the field where outbreaks are reported, and the examination of specimens and material are made in our pathological laboratories. Investigations are made to learn definitely the causes of specific ailments taking an important toll from valuable species in the field and where animals are maintained under controlled conditions. The objects of the project are to determine the exact cause and nature of the disease and to develop such methods of control as may be practically applied.

(e) CONTROL OF PREDATORY ANIMALS AND INJURIOUS RODENTS

Appropriation Act, 1937	$600,000
Budget Estimate, 1938.....	600,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Investigations of methods of control for predatory animals and injurious rodents.....	$32,489	$31,000	$31,000
2. Control of injurious rodents....	226,623	231,000	231,000
3. Control of predatory animals....	340,370	338,000	338,000
Unobligated balance.....	518	- - -	- - -
Total appropriation.....	600,000	600,000	600,000

CHANGE IN LANGUAGE

Public Resolution No. 128 (74th Congress) approved June 24, 1936 (49 Stat., p. 1913), authorizes the Secretary of Agriculture to purchase land in Pocatello, Idaho, including present structures thereon, for the establishment of a game-management supply depot and laboratory and to construct thereon additional buildings or repair those now on the land. Changes in language of this appropriation are requested in order that authorization may be given to use such funds as may be available to maintain and improve the buildings of the supply depot at Pocatello and to use the appropriation for the purchase and handling of supplies for distribution to other projects -- the cost to be adjusted by transfer of funds from such projects. The appropriation will then read as follows:

> Control of predatory animals and injurious rodents: For investigations, demonstrations, and cooperation in destroying animals injurious to agriculture, horticulture, forestry, animal husbandry, and wild game; and in protecting stock and other domestic animals through the suppression of rabies and other diseases in predatory wild animals; <u>and for construction, repairs, additions, and installations in and about the grounds and buildings of the game management supply depot and laboratory at Pocatello, Idaho, including the purchase, transportation, and handling of supplies and materials for distribution from said depot to other projects, in accordance with the provisions of the Act approved June 24, 1936 (49 Stat. p. 1913)</u>, $600,000.

The game-management supply depot, enlarged to handle equipment and supplies for the entire Bureau, is a continuation of the bait-mixing station established with and financed by funds for predatory animal and rodent control. This station was started in 1927 by the local Farm Bureau and the Biological Survey to serve farmers and ranchers in the State of Idaho. Since that time it has enlarged its sphere of service until during the fiscal year 1935 it shipped approximately 2,500,000 pounds of scientifically pre-

pared bait to thirty-four States for the control of rodents. Predatory-animal traps have been purchased and shipped to Pocatello in carload lots for distribution from that point. Pocket-gopher probes and automobile trailers have been manufactured at the plant, and large quantities of surplus Army supplies have been concentrated at that point for distribution to the various western States to carry on predatory-animal and rodent control field operations. It is now proposed to enlarge the station and make its benefits available to other activities of the Bureau and to cooperating agencies.

WORK UNDER THIS APPROPRIATION

General.--Investigations and experiments are conducted to determine and demonstrate the best methods of bringing under control on national forests and other areas of the public domain, as well as on State, Territorial, and privately-owned lands, mountain lions, wolves, coyotes, bobcats, prairie dogs, gophers, ground squirrels, jack rabbits, and other animals injurious to agriculture, horticulture, forestry, animal husbandry, wild game animals, fur-bearing animals, and birds and for the protection of stock and other domestic animals through the suppression of disease carried by predatory or other wild animals. Campaigns for the control of such animals are carried on in cooperation with States, individuals, and public and private agencies, organizations, and institutions.

Prairie dogs, ground squirrels, and other rodents cause great losses to farm crops and forage, and coyotes, mountain lions, wolves, and bobcats each year kill livestock, game, and poultry throughout the western portion of the United States. Rats destroy foodstuffs and spread disease in the cities and rural sections of the entire United States, particularly the East and South.

1. Investigations of Methods of Control for Predatory Animals and Injurious Rodents.--Under this project important investigations are conducted to scientifically determine and improve methods of controlling predatory animals and injurious rodents. A laboratory is maintained at Denver, Colorado, and four field investigators are engaged in this work in different sections of the West. Experiments and tests are conducted in the field and laboratory to develop methods of control that will be practical, economical, and efficient and at the same time result in a minimum of danger to harmless or valuable species of wildlife. Investigations of new and improved scientific methods of control constitute one of the most important parts of the field operations, and it is necessary that research keep pace with the changing conditions and requirements.

2. Control of Injurious Rodents.--Rodent-control work is conducted under cooperative agreements with States, counties, livestock and farm associations, and individuals. The depredations of rodent pests such as prairie dogs, jack rabbits, ground squirrels, pocket gophers, and brown rats result in serious losses annually to forage and farm products and in many areas are the primary and contributing factors in serious soil erosion. The Biological Survey is being called upon to a greater extent each year to supervise extensive rodent-control operations on lands under the jurisdiction of the Forest Service, Bureau of Animal Industry, and Soil Conserva-

tion Service, in the Department of Agriculture; the Indian Service, the Division of Grazing, and the Bureau of Reclamation, in the Interior Department; the Resettlement Administration; as well as on refuges administered by the Bureau of Biological Survey. These agencies are now carrying on the work largely with emergency funds, but it is anticipated that control work will be continued by the majority of the organizations from regular funds when emergency appropriations are no longer available and that rodent control may in the future be financed from grazing fees collected from areas of public domain under administration as grazing districts and from funds allotted for soil-conserving purposes.

3. Control of Predatory Animals.--Under this project a program of work is carried on for the control of coyotes, bobcats, mountain lions, wolves, and other predators in areas where their depredations cause great loss to livestock, game, and poultry. The Federal Government has a distinct obligation in the control of predatory animals because of the fact that they breed and range largely on Federally-owned lands, including national forests, Indian reservations, and the public domain. Private ranchers are unable to cope with the situation to provide funds to control these pests on the vast areas of public lands scattered throughout the West.

Wolf depredations to the reindeer herds in Alaska have become so severe that the Bureau has found it necessary to lend some assistance. Through a temporary arrangement with the Reindeer Service and the Indian Service of the Department of the Interior, one of the Biological Survey's experts was assigned to Alaska on August 1, 1936.

EMERGENCY FUNDS

Direct Allotment

Projects	Obligated, 1936
National Industrial Recovery Act (Public Works allotment transferred from Forest Service):	
Rodent control on national forests.....	$679

(f) PROTECTION OF MIGRATORY BIRDS

Appropriation Act, 1937	$300,000
Budget Estimate, 1938.....	315,000
Increase.....	15,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Enforcement activities under the Migratory Bird Treaty Act	$175,032	$220,000	$235,000	+ $15,000(1)
2. Enforcement activities under the Lacey Act	14,489	29,000	29,000	- - -
3. Investigations of the distribution, migration, and abundance of migratory game and other birds protected by the Migratory Bird Treaty Act	31,868	51,000	51,000	- - -
Unobligated balance	1,589	- - -	- - -	- - -
Total appropriation	222,978	300,000	315,000	+ 15,000(1)

INCREASE

(1) An increase of $15,000 to carry into effect the treaty with Mexico for the protection of migratory birds and game mammals. On April 30, 1936 a convention between the United States and the United Mexican States for the protection of migratory birds and game mammals was ratified by the United States Senate. An amendment to the Migratory Bird Treaty Act to make the convention effective upon the exchange of ratifications between the two governments was passed by Congress and approved by the President on June 20, 1936 (49 Stat. p. 1555).

Under the convention between the United States and Mexico, the two governments agree to protect birds which migrate between the two countries in order to permit their utilization rationally for purposes of sport, food, commerce, and industry. Also, under this convention, the two governments agree to prohibit the transportation over the Mexican border of migratory birds and game mammals, dead or alive, their parts or products, without a permit of authorization provided for the purpose by the government of each country. Under this convention and the Act making it effective, the Biological Survey, as the appropriate agency of the United States Government, is charged with the responsibility of seeing that our Government properly fulfills its obligations to Mexico in the protection of migratory birds and game mammals.

It is impossible for the Biological Survey to adequately take care of this additional work with funds available at present. Additional personnel must be provided to prevent illegal international shipment of protected species and to fulfill our other obligations under the convention with Mexico. The $15,000 recommended is the minimum amount required by the Bureau for enforcing the provisions of this treaty.

CHANGES IN LANGUAGE

The language of this paragraph has been amplified to include reference to the Act approved June 20, 1936 (49 Stat. p. 1555), amending the Migratory Bird Treaty Act of July 3, 1918 (U.S.C., title 16, secs. 703-711), to extend and adapt its provisions to the convention between the United States and the United Mexican States for the protection of migratory birds and game mammals, concluded at the City of Mexico February 7, 1936.

WORK UNDER THIS APPROPRIATION

General.--The purpose of this appropriation is the enforcement of the Migratory Bird Treaty Act enacted by Congress July 3, 1918 to carry into effect the treaty with Great Britain for the protection of birds migrating between the United States and Canada, and the Act approved June 20, 1936 (49 Stat., p. 1555) to carry into effect the convention between the United States and the United Mexican States for the protection of migratory birds and game mammals; the enforcement of the so-called Lacey Act, as amended by the Act of June 15, 1935; and the administration of Section 1 of the Act of May 25, 1900 relating to the introduction, distribution, preservation, and restoration of wild birds and the collection and publication of useful information as to their propagation, use, and preservation.

Work under the Migratory Bird Treaty Act includes the determination of open and closed seasons for migratory game birds and the maintenance of a force of game-management agents throughout the country for the protection of migratory game and non-game species. Investigations are made of the abundance, migratory movements, and conditions which affect ducks, geese, and other migratory birds protected under the Migratory Bird Treaty Act.

The Act of March 4, 1909, as amended by Act of June 15, 1935, prohibits the importation into the United States of birds and mammals which may be injurious to agriculture or horticulture; provides for regulating the entry of other foreign wild mammals and birds into this country, and prohibits the transportation in interstate commerce of game and wild animals killed or shipped in violation of local laws.

1. Enforcement Activities under the Migratory Bird Treaty Act.--Under the Migratory Bird Treaty with Great Britain and the convention between the United States and Mexico, the Department of Agriculture is charged with the enforcement of Federal laws protecting birds. Drainage projects, agricultural and commercial development, and drouth conditions have greatly diminished the breeding, resting, and feeding grounds of many species of migratory birds, particularly waterfowl. With the diminution in the number of acres of wild-bird habitat there has been a proportionate increased concentration of birds in the remaining areas, with the result that hunters have found it easier each year to locate large numbers of wild fowl for the purpose of hunting them. The necessity for more rigid enforcement of the Migratory Bird Treaty Act has increased accordingly, in order to protect the birds from violations of the law during the open seasons and to give them adequate protection on their breeding and feeding grounds, as well as to prevent illegal slaughter by market hunters.

Under the present system of Federal game-law enforcement, the United States is divided into eight regions, and a Regional Director directs the activities of law-enforcement personnel within each region. The field force includes 33 U. S. game-management agents, who enforce the Federal game laws in their respective districts throughout the United States. This force of officers is augmented by about 24 U. S. deputy game-management agents employed for the most part for a period of six months during the open hunting season and while the migratory birds are wintering in this country. These deputy agents are divided into mobile squads of from two to four men and are assigned to duty where their services are most needed.

2. Enforcement Activities under the Lacey Act.--The Biological Survey is charged with the enforcement of the Lacey Act (U. S. C., title 18, secs. 391-394), as amended by the Act of June 15, 1935 (U.S.C., Supp. I, title 18, secs. 392-394), to prohibit the importation of wild birds and mammals which may be injurious to agriculture or horticulture, and to enforce the provision prohibiting the transportation in interstate commerce, by any means whatever, of game killed or shipped in violation of local laws. The suppression of illegal interstate shipments of wild animals or parts thereof is of inestimable benefit to the various States and is of great value in assisting in the maintenance of supplies of fur animals and game. The records of fur dealers, express companies, etc., are examined for the purpose of obtaining evidence of such illegal shipments with a view to prosecution. If it were not for the vigilance of the Federal personnel engaged in this particular work, the maintenance of an adequate supply of beaver and other highly valuable fur animals would be greatly endangered. Inspection service maintained at principal ports of entry for the purpose of stopping the introduction into this country of injurious species of wild birds and mammals is vital to the welfare of the farmer and horticulturist.

3. Investigations of the Distribution, Migration, and Abundance of Migratory Game and Other Birds Protected by the Migratory Bird Treaty Act.--Investigation of the abundance, distribution, and migration of North American game and other birds for the purpose of determining accurately the limits of their breeding and wintering ranges, times of migration, flyways, and routes to and from breeding and wintering quarters, together with the changes in these ranges and routes that are brought about by natural causes or the works of man, are conducted under this project. The possession of such knowledge is vital to a sound regulatory policy concerning the game species.

Through the services of volunteer cooperators, aided and directed by professional biologists on the staff of the Bureau, there is collected each year information relative to the various species of native birds. This is accomplished by special work in the field by Bureau employees, by the reports of observers, by the work of about 2,000 banding stations scattered over the United States and Canada, and by the compilation of material published in contemporary literature. Range maps are prepared from these data and reports are published on the different groups, while annual studies of the status of migratory waterfowl are the basis for the regulatory action of the Department governing the taking of these birds for food and sport.

(g) ENFORCEMENT OF ALASKA GAME LAW

Appropriation Act, 1937.....	$130,798
Budget Estimate, 1938	130,798

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of Alaska Game Law...	$96,075	$130,798	$130,798
Unobligated balance.....	521	- - -	- - -
Total appropriation.....	96,596	130,798	130,798

WORK UNDER THIS APPROPRIATION

The Alaska Game Law, approved January 13, 1925, was enacted to give greater protection to the wildlife resources of the Territory, including game animals, land fur animals, and birds, which constitute a national rather than a local concern. Under this Act was established the Alaska Game Commission of five members, one from each of the four judicial divisions, who are appointed by the Secretary of Agriculture for terms of four years. The fifth member of the Commission, who acts as executive officer, is the chief representative of the Bureau of Biological Survey resident in Alaska.

The Alaska Game Commissioners meet annually for the purpose of digesting the great number of statements, petitions, and requests sent in by residents of the Territory, and after balancing these data with the reports of the warden personnel, proceed to make recommendations to the Secretary of Agriculture, which recommendations form the basis of changes in regulations for the protection of Territorial wildlife. These regulations become effective 90 days after publication by the Secretary of Agriculture.

The Territory of Alaska, which embraces an area of more than 586,000 square miles, is one-fifth the size of the continental United States and nearly equals in extent the combined area of Montana, Wyoming, Colorado, New Mexico and Arizona. Alaska is rich in wildlife resources and is recognized as one of the outstanding game regions of the world for wilderness game animals, and, in addition, produces vast numbers of fur animals, both of which contribute to the food and economic benefits of the residents, including the natives, who depend to a large extent upon these resources for their existence. Included among the game animals found in the Territory are moose, caribou, mountain sheep, mountain goat, Sitkan deer, large brown and grizzly bear, Olympic elk, and transplanted American bison and Greenland muskox. The large brown and grizzly bears of Alaska are the largest carnivorous animals in the world and their perpetuation is of the utmost importance. The big-game animals of Alaska produce an average annual income as a source of meat supply amounting to about $570,000. A further revenue is derived from non-resident hunters, of whom about 200 annually visit the Territory to hunt and photograph the game, and while there each hunter

spends approximately $1,250 for transportation, guides, packers' supplies, etc., making a total income from this source of about $250,000 a year.

The land fur animals include beaver, muskrat, marmot, squirrel, several species of fox, lynx, marten, mink, weasel, land otter, wolverine, polar bear, black bear, including its brown and blue (or glacier bear) color variations, wolves, coyotes, and hares. The wildlife resource showing the largest visible cash return is the fur animal population, which during the past ten years has produced many millions of dollars for the benefit of the residents of the Territory.

Most of the migratory game birds using the Pacific coast flyways come from the vast breeding and nesting areas of the Territory, and many species found breeding in Alaska are not known to breed elsewhere on the continent. Such unusual and valuable forms as the Emperor, cackling, white-fronted, Hutchins', and white-checked geese and black brant rear their broods in Alaska. Whistling swan and sandhill cranes nest commonly in the areas along the tundra behind the Bering and Arctic seacoast. Thousands of mallards, pintails, baldpates, green-winged teal, scaup, and other ducks leave Alaska each fall to furnish shooting for sportsmen of the States, their routes of migration and their early departure from the Territory resulting in only a figurative handful being killed by Alaskans. Vast numbers of the larger, more important shorebirds, such as curlews, godwits, golden and black-bellied plovers, yellowlegs, Wilson snipe, turnstones, dowitchers, and sandpipers find ideal nesting areas there. Three varieties of ptarmigan and five of grouse are native to Alaska and contribute largely to the food supply of the residents.

To these valuable wildlife resources of the Territory the Alaska Game Law furnishes Federal protection and at the same time gives the local residents a voice in the conservation and perpetuation of the species through representation by the Alaska Game Commissioners.

The exceedingly valuable wildlife resources of Alaska can not be maintained for posterity except by the work of the Alaska Game Commission through its limited force of twelve full-time wardens. These wardens annually travel many thousands of miles by snow shoe, dog team, river boat, patrol vessel, commercial steamer, and airplane. The Commission maintains a fleet of nine boats ranging in size from a 114-foot sea-going motorship to small boats for patrolling rivers and inland waterways.

The gross receipts during the fiscal year 1936 from licenses, fines, and forfeitures were $28,468.68. As provided by the Alaska Game Law, fifty percent of this sum was covered into the Treasury as "Miscellaneous Receipts" and fifty percent was turned over to the Treasury of the Territory for the Territorial School Fund.

(h) MAINTENANCE OF MAMMAL AND BIRD RESERVATIONS

Appropriation Act, 1937.....	$335,772
Budget Estimate, 1938.....	450,000
Increase.....	114,228

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Maintenance of mammal reservations.....	$68,509	$120,027	$135,027	+$15,000(1)
2. Maintenance of bird refuges...	11,743	162,245	261,473	+ 99,228(2)
3. Maintenance of Upper Mississippi River Wildlife Refuge...	33,504	35,500	35,500	- - -
4. Maintenance of Bear River Migratory Bird Refuge.....	16,327	18,000	18,000	- - -
Unobligated balance.....	2,886	- - -	- - -	- - -
Total appropriation.....	132,969	335,772	450,000	+114,228

INCREASES

The increase of $114,228 in this item consists of:

(1) An increase of $15,000 for maintenance of three large new game reservations.--Three new game ranges which will be ready for administration in 1938--the Desert Game Range (Lincoln and Clark Counties, Nevada), with an area of 2,022,000 acres; the Cabeza Prieta Game Range (Pima and Yuma Counties, Arizona), 1,900,000 acres; and the King of Arizona Game Range (Maricopa and Yuma Counties Arizona), 1,500,000 acres. The Desert Game Range was established by Executive Order of May 20, 1936 in connection with the organization of grazing districts under the Taylor Grazing Act, and the other two ranges are in the process of establishment. The wildlife and grazing resources of these vast preserves must be surveyed and plans developed in cooperation with the Grazing Division of the Department of the Interior for the management of wildlife and grazing interests. There are no funds now available for the administration of these refuges, which are located in remote areas, and it will be necessary to employ personnel and provide equipment for their efficient protection and administration. Seven additional ranges for big game and other wildlife on the public domain in the States of Arizona, California, Colorado, Montana, New Mexico, Utah, and Wyoming are also in process of establishment.

(2) An increase of $99,228 for maintenance of additional bird-refuge areas.--At the beginning of the fiscal year 1938, it is anticipated that the Bureau will be acquiring, developing, and maintaining a total of 196 refuges under this project, with an area of approximately five million acres, requiring an annual maintenance allotment averaging $4,000 for each refuge. The increase requested will provide an allotment averaging only $1,334 per refuge. The 196 refuges fall into three main classes; primary refuges of from 20,000 to 166,000 acres, secondary refuges comprised of nesting, feeding, and wintering projects, having an acreage of from 10,000

to 18,000 acres, each; and minor refuges from 5,000 to 7,500 acres, which round out the refuge program to its best degree of development and utility. In the general maintenance of the refuges under this project are required new personnel for new refuges, increased personnel where old refuges have been extensively enlarged, general physical improvements such as fencing, patrolling towers, headquarters buildings, extensive seed and cover plantings, extensive biological rehabilitation measures, road and trail development, fire-suppression measures, predator control, and other activities to satisfactorily maintain a refuge to the needs of wildlife. The Government has an investment in these areas of approximately twelve million dollars. With the great increase in number, size, and value of these refuges within the past two years the situation has become acute. The new refuges have been selected because of their suitability as natural habitats for migratory waterfowl. It is now the Bureau's responsibility to maintain and administer these areas so that the greatest possible returns may be secured from this investment.

CHANGES IN LANGUAGE

Since the name of the Wichita National Forest and Game Preserve was changed to "Wichita Mountains Wildlife Refuge" and the administration of the area formally transferred to the Biological Survey by the Agricultural Appropriation Act of June 4, 1936, it is recommended that the words "Wichita National Forest and Game Preserve, to constitute and be designated and administered as" be omitted from the item in the future. Other minor changes simplifying the language have been made.

WORK UNDER THIS APPROPRIATION

General.--Work under this appropriation consists of the administration of wildlife refuges which were selected for their suitability for forms of wildlife that had become greatly reduced in numbers or where notable colonies of birds or mammals requiring protection existed. Seven big-game preserves have been established and three big-game ranges are in the process of establishment. On four of these preserves herds of buffalo, elk, and other big-game animals are maintained under fence. The administration of the Upper Mississippi River Wildlife Refuge, the Bear River Migratory Bird Refuge, and other bird refuges is carried on under this appropriation. The administration and maintenance of these refuges consist of general administration of the refuges; their patrolling and posting; the construction of improvements thereon when funds are available, such as buildings; fences; dikes, dams, and reservoirs for water conservation; watering places for animals; roads and trails, etc.; repair of such improvements; raising of hay and the feeding of big-game animals; propagation of aquatic food plants and raising of grain for waterfowl; reforestation and fire prevention and control; removal of surplus animals; and restocking of areas through the transfer of big-game animals from other points. It is the responsibility of the Biological Survey to give protection to wildlife on these refuges, which have been established under Acts of Congress and by Executive orders.

Animals on Fenced Big-Game Preserves Maintained by the Biological Survey (a)

Preserve	Buffalo	Elk	Antelope	Mountain sheep	Deer: White-tailed	Deer: Mule	(b) Total	Young born in calendar year 1935 (c): Buffalo	Young: Antelope	Young: Mountain sheep
National Bison Range, Montana	486	(d)108	- -	39	(d) 38	(d)160	831	50	- -	16
Niobrara Game Preserve, Nebraska.....	138	(d) 39	29	- -	6	5	217	26	3	- -
Sullys Hill Game Preserve, N. Dak.....	21	(d) 31	- -	- -	17	- -	69	1	- -	- -
Wichita Mts. Wildlife Refuge, Okla..	351	(d)245	- -	- -	(d)653	- -	1249	50	- -	- -
Total.....	996	(d)423	29	39	(d)714	(d)165	2366	127	3	16

(a) With exception of young born, figures are as of June 30, 1936.
(b) Including estimates.
(c) Young of elk and deer omitted, as in most cases only estimates could be made, but during the calendar year 1935 approximately 76 elk calves, 20 mule deer, and 117 white-tailed deer fawns were reported on the preserves.
(d) Estimated.

Texas Longhorns

There are also 121 Texas longhorns on the Wichita Mountains Wildlife Refuge, Oklahoma, and 6 of these animals at Niobrara Game Preserve, Nebraska. Twenty calves were born on the Wichita Refuge during the calendar year 1935.

1. Maintenance of Mammal Reservations.--Herds of buffalo and elk, and in some instances other species, are maintained in fenced pastures on the Bison Range, (Montana), Sullys Hill, (North Dakota) Niobrara, (Nebraska) and Wichita, (Oklahoma) Refuges. The Wichita Refuge was established in 1905, the Bison Range in 1908, Sullys Hill Preserve in 1914, and the Niobrara Preserve in 1912. The original primary purpose of the Wichita, the Bison Range, and the Niobrara Refuge was to perpetuate the American bison, or buffalo, and preserve it from extinction. This animal had been exterminated as a wild species throughout its entire range and only comparatively few animals remained in zoological parks and private herds. The original plan contemplated the establishment of 8 or 10 herds under Government supervision in widely separated sections of the range of the animals. With the exception of the small herd of buffalo at the Pisgah Game Preserve in North Carolina, the Biological Survey, with the transfer of the Wichita to its jurisdiction, now administers all the herds of buffalo under the control of the Department of Agriculture, and established and maintained until July 1, 1935 the herd at the Wind Cave Game Preserve

now under the administration of the National Park Service. The establishment and maintenance of these herds has met with gratifying success, and surplus animals can now be supplied to zoological parks, State preserves, and private breeders to meet the demand for animals for exhibition and breeding purposes. During the past several years the Indian Service has been furnished considerable numbers of surplus buffalo, elk, and deer which have been butchered and the meat distributed to needy Indians on reservations close to our big game projects.

Where range conditions permit, small herds of elk, deer, and in some instances mountain sheep and antelope are maintained on these preserves for the benefit of the public. These projects have proved not only of great value from educational and wildlife conservation standpoints but have solved the problem of perpetuation of the bison and have contributed materially to the conservation of this and other species of big-game animals native to this country. The popularity of this work is evidenced by the large numbers of tourists and others who annually visit these projects for the purpose of seeing these animals in their natural habitat. Small exhibition herds of buffalo, elk, and deer are maintained at the Sullys Hill Preserve, in connection with the recreational features at that point which annually attract about 15,000 visitors from a wide area in North Dakota and nearby States.

The Elk Refuge (Wyoming) is maintained for the production of forage for large numbers of elk in the southern Yellowstone herd that winter in the Jackson Hole region. This refuge is being enlarged by the purchase of some 15,000 acres and the lease of 3,000 acres of privately owned lands under the special appropriation of June 15, 1935 for the purchase of lands for wildlife refuges and by the addition of 3,000 acres of public domain by Executive Order. This project was inaugurated in 1912. The Biological Survey has experienced the utmost difficulty in meeting the problems connected with the winter care of these animals in this region. It has long been agreed by all interests, including the President's National Elk Commission, that no material progress could be made in a permanent solution of these problems without the acquisition of a substantial area in the vicinity of the original refuge established near Jackson, Wyoming. The June 15, 1935 appropriation afforded the first opportunity to carry into effect these plans of long standing. It is expected that, with the completion of this project, the elimination of competing livestock, and the proper development and organization of the area, difficulties heretofore experienced will be greatly decreased. The perpetuation of the elk herd is of national interest, and no single project for the past decade or more for the conservation of wildlife exceeds the importance of making adequate provision for the perpetuation of this magnificent herd of typical American game animals.

The Wichita Mountains Wildlife Refuge, (Oklahoma), in addition to providing for the herds of buffalo, elk, and Texas longhorns, affords extensive ranges for deer, wild turkeys, prairie chickens, quail, and other species of upland game. The 30 or more lakes, that have been provided through dams and water-control structures constructed with the aid of emergency funds and CCC Camps that have been stationed in the area since that work was inaugurated, are proving most attractive to ducks, geese, and many other species of migratory birds. The plan for this area con-

templates the development of an extensive research center and field laboratory for the determination of problems connected with the perpetuation of wildlife under natural conditions. The results of this research will be applicable to the entire Great Plains region of the country and, with slight modification, to the entire Nation.

For years extensive recreational uses have been made of a portion of this preserve, and with the aid of CCC work about one-third of the area has been segregated and extensively developed for recreational purposes. Approximately half a million people avail themselves annually of opportunities for camping and other recreational activities on the refuge. Great numbers of them are definitely interested in the big-game birds and other wildlife on the areas, as well as in the research program.

The original Charles Sheldon Refuge (Nevada), which comprised 34,180 acres, has been supplemented by the withdrawal of 525,000 acres of public domain by Executive Order of September 6, 1935, in connection with the organization of grazing districts under the Taylor Act. The Hart Mountain Game Range (Oregon), (area 609,000 acres) was set aside by the same order and with the enlarged Charles Sheldon Refuge comprises the summer and winter ranges of large numbers of antelope in northwestern Nevada and southeastern Oregon. These areas also provide protection for large numbers of deer, sage grouse, and other species of upland and migratory game. The importance of these projects in the protection and perpetuation of the beautiful plains pronghorn antelope, which so recently was on the verge of extermination over large portions of its range, can not be overemphasized. For the past decade the establishment of these areas has been the aim of conservationists from many sections of the country familiar with the situation confronting the perpetuation of these animals. Much work must be done in appraising the game animals of these regions, the grazing resources, and the development of plans in cooperation with the Grazing Division of the Department of the Interior for the safeguarding of the wildlife and the livestock interests of the area.

The Desert Game Range (area, 2,022,000 acres), established by Executive Order of May 20, 1936, is for the protection of the Nelson Rocky Mountain sheep or desert bighorns, and the proposed Cabeza Prieta (area 1,900,000 acres) and King of Arizona (area, 1,500,000 acres) Game Ranges are also for different species of rapidly vanishing desert bighorns. The establishment and organization of these hereditary game ranges in connection with the control of organized grazing throughout the Western States is a conservation program of the first magnitude. Many species of big-game animals such as antelope, the several species of bighorn mountain sheep, elk, deer, the several species of quail, grouse, and fur animals, have reached a distressingly low ebb for the lack of adequate protection. Seven additional ranges for big game and other wildlife life on the public domain are also in the process of establishment in the States of Arizona, California, Colorado, Montana, New Mexico, Utah, and Wyoming. Were this opportunity to establish these hereditary ranges to be neglected, the extermination of many of these species would be only a matter of a short time and the results inevitable. These wildlife resources are of great value to the western section of the country and to the Nation as a whole.

2. Maintenance of Bird Refuges.--Work under this project consists of rehabilitating, developing, and administering areas that have been set aside primarily for migratory waterfowl and other birds. The work includes patrolling and posting refuges; construction of improvements when funds are available, such as buildings, fences, dikes, dams, and reservoirs for water conservation and roads and trails where necessary; propagation of aquatic food plants and raising of grain for waterfowl; reforestation and fire prevention and control; biological rehabilitation of refuge areas; and other work tending to the protection and increase of the various species frequenting the refuges.

Among the more important refuges administered or to be administered under this project are the White River Refuge, Arkansas (110,000 acres), protecting one of the greatest winter concentration areas of mallards in the United States; Sacramento Refuge, California (10,775 acres), a great goose wintering area; the Delta and Sabine Lake Refuges in Louisiana (39,207 and 137,233 acres, respectively), wintering refuges of increasing importance; the Seney Marsh Refuge, Michigan (85,000 acres), an important black-mallard producing area; Red Rock Lakes Refuge, Montana (25,000 acres), an excellent duck-nesting area and one of the few remaining nesting places of the trumpeter swan in the United States; Lake Mattamuskeet Refuge, North Carolina (50,580 acres), the most important goose and swan wintering area on the Atlantic Coast; the Upper and Lower Souris Refuges, North Dakota (30,500 and 50,000 acres, respectively), the greatest nesting restoration to date; the Lake Malheur-Blitzen Valley Refuge, Oregon (161,610 acres), a restoration of the greatest waterfowl area on the Pacific Coast; and Sand Lake Refuge, South Dakota (20,303 acres), a large scale restoration project.

To the extent that emergency funds have permitted, an extensive development program has been initiated and in some cases completed, involving further impoundment of water, erection of nesting islands, food plantings, reforestation, reduction and control of fire hazards, building of patrol roads and lanes, erection of patrol towers and stock-proof fencing, control of predators, water-table investigations, sinking of artesian wells, flood irrigation, and many other rehabilitation activities. On one of the refuges thus rehabilitated more than 500 pairs of nesting birds were counted on 2,000 acres of land during the 1935 breeding season.

3. Maintenance of Upper Mississippi River Wildlife Refuge.--This refuge was established by Act of Congress approved June 7, 1924 (U. S. C. title 16, secs. 721-731), authorizing an appropriation of $1,500,000 for the acquisition of lands in the overflow area of the Mississippi River in the States of Illinois, Iowa, Minnesota, and Wisconsin between Rock Island, Illinois, and Wabasha, Minnesota, a distance of approximately 300 miles. Approximately 146,900 acres have been acquired for refuge purposes. The administration of this project includes the supervision and intensive patrol of the area to protect its abundant wildlife; to prevent deforestation and despoliation; to prevent and suppress forest fires; to regulate and supervise under a permit system as much recreational and social usage of the area as is compatible with the wildlife purposes of the area; to supervise public shooting grounds; to propagate, disseminate, and preserve aquatic plants which are important in the production of waterfowl food; to detect and reduce pollution as far as possible; to raise large quantities of small grains as

supplementary foods for the early spring concentrations of waterfowl in this area, which occur in literally hundreds of thousands; to take over and develop the lands acquired by the Government in connection with the Army Engineers Corps' development of a nine-foot channel in the Mississippi; to assist State conservation officers in general enforcement on the area; to supervise the sale of excess products, such as timber, grazing, and forage production; and to do all things contributory to the maintenance of this great refuge in the interest of wildlife conservation and production.

4. Maintenance of Bear River Migratory Bird Refuge.--The establishment of this refuge, which includes marsh and water areas totaling 56,255 acres, was urgently advocated by game officials, sportsmen, and other conservationists from the entire United States to eliminate the death trap for migratory and other birds which had long existed in the bay at the mouth of the Bear River, Great Salt Lake, Utah, and which in certain years of drought or unfavorable conditions often resulted in the death of from 150,000 to 250,000 waterfowl annually. The establishment of the refuge was authorized by the Act of April 23, 1928 (U. S. C., title 16, sec. 690-690h). It is one of our most important refuges from the standpoint of breeding and reproducing migratory waterfowl. It contains the greatest single concentration of redhead and cinnamon teal ducks in the United States and also many species of other waterfowl and migratory shore birds. It is a key feeding, nesting, and restoration concentration point for the waterfowl in the Pacific flyway. To remove the formerly existing death trap here and to greatly enhance and increase the carrying capacity of this area, an intricate, massive dike system was provided for the maintenance of approximately 28,000 acres of fresh water, divided into five units. Forty percent of this flooded area was allowed to be used as public shooting grounds by the Act of Congress establishing the refuge. The remainder is administered as an inviolate sanctuary.

The administration of the area includes the maintenance and surfacing of the dikes by class B and C riprap to prevent damage by wave action; the careful operation of control gates to provide the proper water levels for food production, nesting safety, and the release of flood waters; construction of patrol roads and paths; propagation and dissemination of duck-food plants; reduction of predators in the interest of increased nesting; patrol of the area against trespass and violation of refuge and migratory-bird laws; supervision of the public shooting grounds; and, within recent years, providing study facilities for the large numbers of wildlife students, nature lovers, and outdoor and sportsmen's organizations which frequent this great wildlife area.

(i) UPPER MISSISSIPPI RIVER WILDLIFE REFUGE

Appropriation Act, 1937.....	$18,500
Budget Estimate, 1938.....	- - -
Decrease.....	18,500

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Decrease
Acquisition of land for the Upper Mississippi River Wildlife Refuge.....	(a)$1,943	(b)$18,500	- - -	-$18,500(1)

(a) In addition, $7,334 was obligated from balances of prior-year appropriations.
(b) In addition, $16,666 was obligated from balances of prior-year appropriations.

DECREASE

(1) This appropriation item is omitted for 1938.

WORK UNDER THIS APPROPRIATION

This activity was initiated by special Act of Congress approved June 7, 1924, which authorized a total appropriation of $1,500,000 for the acquisition of lands in the overflow area of the Mississippi River in Illinois, Iowa, Minnesota, and Wisconsin between Rock Island, Illinois, and Wabasha, Minnesota--a distance of approximately 300 miles--for the purpose of establishing a refuge for wild animals and birds and for the conservation of wild flowers and aquatic plants (under the Department of Agriculture) and as a refuge and breeding place for fish and other aquatic life (under the Department of Commerce). A total of $910,838 has been appropriated to date. Land acquisition has proceeded as rapidly as possible under the price limitations of the Act and available appropriations. The work incident thereto includes the examination and valuation of lands, negotiations with tract owners for the purpose of arriving at satisfactory agreements, examination of titles, and boundary surveys of lands being acquired. At the close of the fiscal year 1936 a total of approximately 146,900 acres had been acquired for refuge purposes.

The War Department, pursuant to the development of a nine-foot channel in the upper reaches of the Mississippi River, is engaged in the construction of locks and dams within the area previously established for the Upper Mississippi River Refuge. This development work has resulted in changing the physical conditions of the lands within the pool areas created by dam construction. Lands which were previously overflowed only at high water stages have been and are, as new structures are erected, becoming permanently flooded. As a result of the expansion of the water areas, in order to effectively administer the lands previously acquired for inclusion in this refuge, it will be necessary, ultimately, to purchase additional lands bordering the pools created and planned.

(j) MIGRATORY BIRD CONSERVATION REFUGES

Appropriation Act, 1937.....	$79,753
Budget Estimate, 1938.....	79,753

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Administration of migratory bird conservation refuges	$30,280	$22,700	$22,700
2. Biological investigations and wildlife management of areas...	4,759	5,968	5,968
3. Investigations of diseases of birds.....	6,012	14,900	14,900
4. Examinations, surveys, and acquisition of refuge land.....	28,908	36,185	36,185
Unobligated balance.....	6,551	- - -	- - -
Transferred to "Fur Resources Investigations".....	+1,000	- - -	- - -
Total appropriation.....	77,510	79,753	79,753

WORK UNDER THIS APPROPRIATION

General.--The Migratory Bird Conservation Act of February 18, 1929, (U.S.C., title 16, secs. 715-715r) authorized a 10-year program for the establishment of a national system of refuges for the conservation and perpetuation of waterfowl and other migratory birds. Work under this appropriation includes the maintenance and administration of refuge areas acquired under this Act and the development of such areas and other refuges; the elimination of loss of migratory birds due to alkali-poisoning, oil pollution, disease, or other causes; biological investigations and wildlife management of refuges and other areas; and examinations, surveys, and acquisition of land and water for migratory bird refuges throughout the United States.

1. Administration of Migratory Bird Conservation Refuges.--Refuges acquired or established under the Migratory Bird Conservation Act are partly administered under this project. Full-time refuge managers are provided at the Blackwater Refuge, Maryland (area, 8,500 acres); Cape Romain Refuge, South Carolina (60,000 acres); St. Marks Refuge, Florida (35,000 acres); Swanquarter Refuge, North Carolina (42,900 acres); and Crescent Lake Refuge, Nebraska, (42,000 acres), which were established as breeding, resting, and feeding areas for migratory waterfowl and other birds. Extensive developments and improvements have been made on the refuges under Public Works funds and with the aid of C.C.C. camps. The maintenance of the refuges consists of their patrol for the enforcement of refuge acts and protection against fire; planting of food and cover; upkeep of engineering improvements and buildings; and other activities tending to increase the effectiveness of the areas as migratory bird refuges.

2. Biological Investigations and Wildlife Management of Areas.--The object of this project is to inspect and determine the biological

suitability of wildlife areas, including refuges acquired or proposed; to develop suitable game and wildlife habitats; and to establish proper wildlife management practices that will give the maximum population of desired forms of wildlife consistent with biological limitations or local conditions. Field parties consisting of trained botanists, ornithologists, or wildlife technicians equipped for the collection and identification of aquatic, marsh, and upland plants and animals are detailed for investigations of all proposed or unworked areas. Detailed reports on specific areas are prepared and submitted with appropriate recommendations. Known management practices to develop appropriately the various areas are inaugurated and experimental testing is made of untried or unknown practices which might improve food and cover requirements under varying and local conditions.

3. Investigations of Diseases of Birds.--Under this project work is conducted on diseases attacking migratory waterfowl and upland game birds. The excessive losses from such conditions as botulism, lead poisoning, and parasitism demand continued research on waterfowl diseases. Investigations on botulism are to be continued along the line of attempting to find some means of reducing losses where a control of the water level is not feasible. Continuation of the research on non-toxic shot for wild-fowling is to be followed. In this research attempts will be made to develop a practicable pellet which will not retain its form in such a manner as to make it an enduring source of lead poisoning to birds eating it.

4. Examinations, Surveys, and Acquisition of Refuge Land.--Potential refuge areas are examined to determine those best adapted biologically for such purposes. Favorable reports are followed by investigations to determine the types of land and their extent, the soil cover, improvements, etc., and to ascertain the market value of those tracts under consideration for purchase. Negotiations with the owners are conducted to reach equitable price agreements and options are secured. Refuges can not be acquired in any State until the State has passed enabling legislation consenting to the acquisition of land by the Federal Government. No purchase can be made of an area until it has been approved by the Migratory Bird Conservation Commission. Under the Migratory Bird Conservation Act more than 4,000,000 acres in 141 proposed refuge sites have been examined and ownership records compiled. For the past several years the appropriations have been inadequate to permit any purchases under this appropriation but examinations, appraisals, surveys, and topographic studies and map-making have been carried on by the small force retained under this project.

(k) MIGRATORY BIRD CONSERVATION FUND

Appropriation Act, 1937.....	$425,000	(a)
Budget Estimate, 1938.....	425,000	(a)

(a) The above amounts are the estimated receipts from the sale of Federal hunting stamps for the fiscal years involved; of which the Agricultural Appropriation Act for 1937 and the estimates for 1938 provide for an advance of $125,000 from the Treasury pending deposit of hunting-stamp receipts. This advance is repaid to the Treasury from the first $125,000 deposited in the fund. The unobligated balance from stamp sales in prior fiscal years and the receipts for the current fiscal year are also available for expenditure.

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Administration and enforcement of Migratory Waterfowl Hunting Stamp and Migratory Bird Treaty Acts.....	$75,972	$47,453	$42,500
2. Acquisition, development, and maintenance of migratory-bird refuges.....	475,428	612,216	382,500
Total obligations.....	551,400	659,669	425,000
Plus unobligated balance from prior fiscal year held as a reserve for succeeding fiscal year.....	+334,669	+100,000	+100,000
Less unobligated balance brought forward from prior fiscal year....	-461,123	-334,669	-100,000
Total appropriation.....	424,946	425,000	425,000

WORK UNDER THIS APPROPRIATION

General.--The Migratory Waterfowl Hunting Stamp Act of March 16, 1934 (U.S.C., title 16, secs. 718-718h), as amended by Act of June 15, 1935 (U.S.C., Supp. I, title 16, secs. 718a-718e), provides that every hunter of migratory waterfowl must have in his possession a Federal hunting stamp. The stamps are sold at postoffices at a cost of one dollar each. The funds provided by the sale of these stamps are used for wildlife conservation, being expended on the basis of 90 percent for acquiring, restoring, and administering potential waterfowl habitats as inviolate refuges, and 10 percent for the enforcement of the various Acts for the protection of migratory birds and the expenses of the Post Office Department for engraving, issuing, and accounting for the stamps.

This Act was passed because of the rapid diminution in the numbers of migratory waterfowl and especially because of the appalling reduction of these birds during the protracted drought period which existed in the heart of the migratory-waterfowl breeding grounds in the interval between the summers of 1930 and 1933. During these years the migratory flocks became so reduced in numbers that sportsmen and conservationists alike were alarmed at the apparent extinction facing this valuable recreational and economic resource. This concern for migratory wildlife spread to all walks of American life, and public opinion and demand became so mobilized, when the numbers of the birds continued to diminish, that Congress enacted the Migratory Bird Hunting Stamp Act to provide funds for the conservation of migratory waterfowl as a definite and recognizedly important section of our national wildlife resources.

1. Administration and Enforcement of Migratory Waterfowl Hunting Stamp and Migratory Bird Treaty Acts.--The expenditure of ten percent of the receipts from sales of migratory-waterfowl hunting stamps is authorized for the administration and enforcement of the Migratory Waterfowl Hunting Stamp and Migratory Bird Treaty Acts, including expenditures incurred by the Post Office Department for issuance and sale of stamps. A vigorous enforcement campaign in all the States to see that this revenue-producing statute is obeyed is of prime importance. The field law-enforcement officers employed under this project work in cooperation with those employed under the Migratory Bird Treaty Act to enforce all Federal laws and regulations protecting migratory birds.

2. Acquisition, Development, and Maintenance of Migratory Bird Refuges.--The development and maintenance of refuge areas with the proper biological conditions necessary for the survival of migratory waterfowl is one of the most important duties performed by the Biological Survey. As it is necessary at the present time to use a large portion of the Migratory Bird Conservation Fund for development and maintenance purposes, acquisition of additional areas under this appropriation is being subordinated to restoration, development, maintenance, and patrol activities. The Biological Survey is faced with the task of restoring acres ruined for wildlife by unprofitable drainage irrigation ventures, which reduced former excellent waterfowl and other wildlife habitats to a condition of wildlife barrenness. This calls for a high degree of scientific development and maintenance, inasmuch as each acre of live marsh must now be made to afford sanctuary facilities for more than the former natural carrying capacity.

Work under this project consists in reconnaissance and habitat improvement, restoration and development, and maintenance and patrol. Habitat improvement consists of the biological rehabilitation of areas which must be worked over and made acceptable to waterfowl by planting of the proper food and cover plants, trees, and other vegetation; control of waterfowl disease epidemics; manipulation of water levels in the most advantageous way; reforestation and erosion control; creation of nesting islands; range management; and other developments conducive to the wildlife production of the area. The personnel engaged in this work are trained waterfowl biologists who make exploratory surveys along the main flyways of migratory waterfowl and select areas for acquisition and development which show the best potentialities for wildlife and waterfowl sanctuary purposes.

Restoration and development activities consist of hydraulic engineering and architectural developments on the refuges. There are very few natural waterfowl habitats of any great size left. It is therefore necessary to restore former natural areas which have been unsuccessfully drained or otherwise have had their original suitability for waterfowl changed. Almost every area requires extensive impounding and stabilization of water levels to secure a safe and permanent water supply. After hydraulic and topographic surveys have been made, engineering contracts are let to provide for necessary water impoundment. The architectural force designs and supervises the construction of refuge headquarters buildings and provides for landscaping when necessary.

Maintenance and patrol work involves the administration and protection of refuges, which, due to the limited funds available, can not be administered under the appropriation for "Maintenance of Mammal and Bird Reservations". This work consists of removal of fire hazards; laying-out and maintenance of fire lines; posting refuges against trespass; patrolling areas to enforce the migratory bird refuge laws; reduction of predators; supervising the sale of excess products from the refuges such as hay, timber, forage, etc.; raising considerable amounts of small grains as a supplement to the natural waterfowl foods occurring on the refuge; repairing water impoundment stabilization systems and maintaining water levels; supervising recreation centers; and performing other administrative duties necessary for the maintenance of refuges at the highest possible level of productivity and serviceability to migratory birds.

(1) PAYMENTS TO COUNTIES UNDER MIGRATORY BIRD CONSERVATION ACT

Appropriation, 1937.....	$6,500
Budget Estimate, 1938.....	7,500
Increase.....	1,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
Payments to counties from receipts under Migratory Bird Conservation Act.....	$6,276	$6,500	$7,500	+$1,000(1)

INCREASE

(1) An additional $1,000 is estimated because of anticipated increase in receipts under this activity during the fiscal year 1937.

WORK UNDER THIS APPROPRIATION

Title IV of the Act approved June 15, 1935 (U.S.C., Supp. I, title 16, sec. 715s) provides as follows:

> "That 25 per centum of all money received during each fiscal year from the sale or other disposition of surplus wildlife, or of timber, hay, grass, or other spontaneous products of the soil, shell, sand, or gravel, and from other privileges on refuges established under the Migratory Bird Conservation Act of February 18, 1929, or under any other law, proclamation, or Executive order, administered by the Bureau of Biological Survey of the United States Department of Agriculture, shall be paid at

the end of such year by the Secretary of the Treasury to the county or counties in which such refuge is situated, to be expended for the benefit of the public schools and roads in the county or counties in which such refuge is situated: Provided, that when any such refuge is in more than one State or Territory or county or subdivision, the distributive share to each from the proceeds of such refuge shall be proportional to its area therein: Provided further, that the disposition or sale of surplus animals, and products, and the grant of privileges on said wildlife refuges may be made upon such terms and conditions as the Secretary of Agriculture shall determine to be for the best interests of government or for the advancement of knowledge and the dissemination of information regarding the conservation of wildlife, including sale in the open market, exchange for animals of the same or other kinds, and gifts or loans to public or private institutions for exhibition or propagation; And provided further, that out of any moneys received from the grant, sale, or disposition of such animals, products, or privileges, or as a bonus upon the exchange of such animals the Secretary of Agriculture is authorized to pay any necessary expenses incurred in connection with and for the purpose of effecting the removal, grant, disposition, sale, or exchange of such animals, products, or privileges; and in all cases such expenditures shall be deducted from the gross receipts of the refuge before the Secretary of the Treasury shall distribute the 25 per centum thereof to the States as hereinbefore provided."

The amount of this appropriation will vary from year to year in direct proportion to the receipts during the previous fiscal year. Increases in this appropriation are offset by additional revenue to the Federal treasury in the ratio of 4 to 1; that is, for each dollar increase in payment to counties the net revenue to the Federal treasury has been increased three dollars.

EMERGENCY FUNDS

Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
National Industrial Recovery Act:			
Public Works allotments:			
Construction and repairs (work begun in 1934).....	$4,988	- - -	- - -
Transfer from Forest Service for rodent control on national forests (work begun in 1934).....	679	- - -	- - -
Acquisition, improvement, and development of wildlife refuges..	2,837,231	$2,580,269	$475,000
Expenses of North American Wildlife Conference.....	8,000	4,500	- - -
Total, National Industrial Recovery Act.....	2,850,898	2,584,769	475,000
Emergency Relief Appropriation Act of 1935:			
Acquisition of refuge lands....	406,441	- - -	- - -
Improvement of wildlife areas in North Dakota.....	238,077	49,212	- - -
Administrative expenses in connection with acquisition and development of wildlife refuges.....	199,035	10,155	- - -
Total, Emergency Relief Act of 1935.....	843,553	59,367	- - -
Emergency Relief Appropriation Act of 1936:			
Improvement of wildlife refuges.....	- - -	1,088,000	- - -
Administrative expenses in connection with refuge improvement.....	- - -	32,000	- - -
Total Emergency Relief Act of 1936.....	- - -	1,120,000	- - -
Total, Direct Allotments.....	3,694,451	3,764,136	475,000

Indirect Allotments

(Financed through other government agencies)

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
Emergency Conservation Work (authorized by Acts of March 31, 1933 and April 8, 1935; Allotment through War Department):			
Work by Civilian Conservation Corps on wildlife refuges.....	$1,552,747	$850,000	- - -
Submarginal Land Acquisition (financed by Resettlement Administration):			
Acquisition of land for wildlife refuges.....	665,261	- - -	- - -
National Industrial Recovery Act (financed by Resettlement Administration):			
Improvement of Mud Lake Migratory Waterfowl Refuge, Minn...	- - -	144,000	- - -
Total, Indirect Allotments...	2,218,008	994,000	- - -

PASSENGER-CARRYING VEHICLES

The amount authorized for the purchase of passenger-carrying vehicles for the fiscal year 1938 ($53,785) is the same as that allotment for 1937. Of the 88 cars estimated to be purchased in 1938, 75 will replace passenger cars now in use; 8 will be needed in connection with increases requested for 1938; and 5 cars will be required for the use of migratory-bird refuge supervisors, the latter having been in the authorized estimates for 1937 but will not be purchased until 1938, due to lack of funds.

It is necessary in carrying on much of the field work of the Bureau of Biological Survey to cover long stretches of territory by automobile, considerable portions of which are inaccessible by other means of transportation. The Government-owned automobile has been found to be the most economical means of transportation and a great time saver. It has also been found a less expensive means of transportation when travel is extensive than to allow mileage rates to employees for use of their personnally-owned automobiles, as Government cars can be operated more cheaply than privately-owned cars. Because of these facts, the Bureau several years ago inaugurated a policy of furnishing Government-owned cars for use of employees when the travel was sufficiently extensive to effect a real saving thereby.

Although much of the field service is now equipped with passenger-carrying cars, it is necessary in the continuation of this policy to keep the equipment in satisfactory running condition. This requires cars to be replaced at intervals, depending upon the mileage covered and conditions under which operated. During the fiscal year 1936, 139 passenger cars operated by the Bureau for 2,597,106 miles showed an average operating cost of 2.1 cents per mile. Forty-nine passenger cars turned in during the past three years showed an average operating cost, including depreciation, of 2.78 cents per mile.

Besides the 75 replacement vehicles and 13 cars estimated to be purchased under regular funds, the estimates contemplate continuation of the authorization of $4,200 to be expended for the purchase of six passenger cars, in connection with inspection of engineering and housing contracts to be executed under the special appropriation "National Industrial Recovery, Agriculture, Wildlife Refuges", made available by Title VII of Public 148, 74th Congress, entitled "An Act to amend the Migratory Bird Hunting Stamp Act of March 16, 1934, and certain other Acts relating to game and other wildlife, administered by the Department of Agriculture, and for other purposes", approved June 15, 1935; this sum being available until expended for the acquisition of refuge lands and improvements thereto. In order to more economically carry out the purposes of this Act, six passenger cars will be needed for the use of inspectors in traveling from refuge to refuge where construction contracts will be in progress.

BUREAU OF PUBLIC ROADS

(a) FEDERAL-AID HIGHWAY SYSTEM

Agricultural Appropriation Act, 1937	$60,000,000
Budget Estimate, 1938	150,000,000(1)
Increase	90,000,000

(1) The 1938 estimates for Federal-aid highway system are included under the section "General Public Works Program", beginning on page 115.

Section 4 of the Act of June 18, 1934 (48 Stat., p. 994) authorized $125,000,000 to be appropriated for each of the fiscal years 1936 and 1937 for expenditure pursuant to the provisions of the Federal Highway Act. The $150,000,000 estimated in the Budget for 1938 is composed of $25,000,000, the remaining unappropriated part of the sum of $125,000,000 authorized to be appropriated for the fiscal year 1936, and $125,000,000 authorized to be appropriated for the fiscal year 1937. It is estimated that the $150,000,000 recommended in the Budget will be required to liquidate obligations which will accrue hereunder during the fiscal year 1938.

CHANGES IN LANGUAGE

(a) The authority contained in the third and fourth provisos, relative to charges for engineering and other services rendered to other Government agencies, and making Bureau of Public Roads appropriations available for expenses of warehouse maintenance, etc., has been extended to apply to the fiscal year 1938.

(b) The proviso relating to the construction of a laboratory building has been amended so as to read:

> "Provided further, That not to exceed [$500,000] $450,000 from the administrative funds authorized by the Act approved November 9, 1921, and Acts amendatory thereof or supplemental thereto, in addition to the amount remaining available under the authorizations contained in the Agricultural Appropriation Acts approved May 27, 1930, [and] May 17, 1935, and June 4, 1936, shall be available, in total amount of $1,360,000, for the construction (including the cost of a site already acquired) of a laboratory [, on a site already acquired,] for permanent quarters for the testing and research work of the Bureau of Public Roads".

The purpose of this provision is to authorize the use of Federal-aid highway administrative funds for the construction of a roads research laboratory; the additional amount being necessary to meet the increase in contract costs over the original estimates.

(c) The following new proviso has been added at the end of the paragraph:

"Provided further, That hereafter the appropriations available to the Bureau of Public Roads may be used for medical supplies and services and other assistance necessary for the immediate relief of employees engaged on hazardous work under that Bureau."

The purpose of this provision is to enable the Bureau of Public Roads to give first-aid medical attention to employees who may be injured or become sick while working in camps or other locations remote from regular practicing physicians, and where such injury or sickness is not due to their employment. Recently the Bureau had to deny several claims for medical supplies and medical aid rendered employees engaged at a Government camp at Curtis Creek, North Carolina, due to the absence of statutory authority to make payment. The medical supplies and medical aid were considered necessary because of a serious outbreak of influenza and were furnished in an effort to prevent the spread of the disease among the employees at the camp. The United States Compensation Commission will give no consideration to the payment of bills for the treatment of employees where their injury or sickness is not due to their employment; and the Comptroller General has held that the cost of medical treatment for civilian employees is not payable from Government funds in the absence of statutory authority.

WORK UNDER ROAD APPROPRIATIONS

Cooperative highway work with all of the States was started under the Act of July 11, 1916. Under these appropriations the Federal Government cooperates with the several States and the Territory of Hawaii in improving highways, as provided in the Federal Highway Act of November 9, 1921 and subsequent amendments. The Federal-aid highway system, to which regular Federal-aid expenditures are restricted, was initially limited to seven percent of the total highway mileage in each State. The routes in the system were selected by the States and approved by the Secretary of Agriculture. Additions of one percent may be made to the system when provision has been made for the improvement of 90 percent of the approved mileage in any State. On December 1,1936 the system exceeded 223,000 miles of the principal highways of the country and connected all the principal cities, county seats, and other market centers in the United States. About 130,272 miles of this system have been improved with Federal-aid funds, and more than 10,998 miles additional were under construction or approved for construction on June 30, 1936.

Funds provided under the National Industrial Recovery Act and subsequent emergency highway appropriations have been available for expenditure in improving secondary or feeder roads. As of June 30, 1936, 13,854 miles of these secondary or feeder roads (which are not a part of the Federal-aid highway system) had been constructed and 7,921 additional miles were under construction or approved for construction.

The initiation of and immediate supervision of the construction of Federal-aid projects are under the State highway departments, with engineers of the Bureau of Public Roads making frequent inspections and

approving all work from the inception of a project until its completion.

Regular Federal-Aid Authorization

Section 4 of the Hayden-Cartwright Act of June 18, 1934 (48 Stat. p.994) authorized appropriations of regular Federal aid in the amount of $125,000,000 for the fiscal year ending June 30, 1936, and $125,000,000 for the fiscal year ending June 30, 1937. These funds must be matched by State funds and are available for improvement of the Federal-aid highway system. In accordance with the Federal Highway Act, the authorization for the fiscal year 1937 was apportioned on December 28, 1935. The apportionment by States follows:

Apportionment of Regular Federal-aid Highway Funds for Fiscal Year 1937

State	Sum apportioned	State	Sum apportioned
Alabama	$2,603,967	New Jersey	$1,676,718
Arizona	1,783,362	New Mexico	1,990,724
Arkansas	2,133,206	New York	6,156,604
California	4,751,712	North Carolina	2,940,809
Colorado	2,286,333	North Dakota	1,958,107
Connecticut	791,660	Ohio	4,565,769
Delaware	609,375	Oklahoma	2,937,406
Florida	1,659,835	Oregon	2,045,078
Georgia	3,168,222	Pennsylvania	5,347,386
Hawaii	609,375	Rhode Island	609,375
Idaho	1,534,142	South Carolina	1,688,441
Illinois	5,165,226	South Dakota	2,041,872
Indiana	3,096,645	Tennessee	2,630,111
Iowa	3,234,910	Texas	7,771,317
Kansas	3,314,031	Utah	1,416,208
Kentucky	2,307,812	Vermont	609,375
Louisiana	1,780,991	Virginia	2,280,725
Maine	1,087,030	Washington	1,954,781
Maryland	1,025,000	West Virginia	1,359,961
Massachusetts	1,743,487	Wisconsin	3,044,947
Michigan	3,831,476	Wyoming	1,562,528
Minnesota	3,426,001		
Mississippi	2,191,112	Total apportionments	121,875,000
Missouri	3,800,344		
Montana	2,561,884	Reserved for administration and engineering	3,125,000
Nebraska	2,586,267		
Nevada	1,593,978		
New Hampshire	609,375	Total authorization, 1937	125,000,000

Section 1 of the Hayden-Cartwright Act of June 16, 1936 (49 Stat., pp. 1519, 1520) authorized the appropriation of regular Federal-aid funds in the amount of $125,000,000 for the fiscal year ending June 30, 1938, and $125,000,000 for the fiscal year ending June 30, 1939.

PASSENGER-CARRYING VEHICLES

Continuation into 1938 of the authorization for expenditure of not to

exceed $45,000 for the purchase of passenger-carrying vehicles is recommended in order to permit the replacement of 82 vehicles at a net average cost of $549 each, as set forth in detail in the Budget schedules.

(b) EMERGENCY RELIEF APPROPRIATION ACT OF 1935
(Highways, Roads, Streets, and Grade-Crossing Elimination)

On May 16, 1935 the President approved an allocation of $400,000,000 to the Department of Agriculture for expenditure by the Bureau of Public Roads. This allocation was made under Section 1 of the Emergency Relief Appropriation Act of 1935 and provided $200,000,000 for highways, roads, and streets and $200,000,000 for the elimination of hazards at railroad grade crossings. In June, 1935 these funds were apportioned among the States, in accordance with the terms of the Act, as shown by the following table:

APPORTIONMENT FOR HIGHWAYS, ROADS, STREETS, AND GRADE-CROSSING ELIMINATION

State	Highways, roads, and streets	Grade-crossing elimination	Total
Alabama.....	$4,151,115	$4,034,617	$8,185,732
Arizona.....	2,569,841	1,256,099	3,825,940
Arkansas.....	3,352,061	3,574,060	6,926,121
California.....	7,747,928	7,486,362	15,234,290
Colorado.....	3,395,263	2,631,567	6,026,830
Connecticut.....	1,418,709	1,712,684	3,131,393
Delaware.....	900,310	418,239	1,318,549
Florida.....	2,597,144	2,827,883	5,425,027
Georgia.....	4,988,967	4,895,949	9,884,916
Idaho.....	2,222,747	1,674,479	3,897,226
Illinois.....	8,694,009	10,307,184	19,001,193
Indiana.....	4,941,255	5,111,096	10,052,351
Iowa.....	4,991,664	5,600,679	10,592,343
Kansas.....	4,994,975	5,246,258	10,241,233
Kentucky.....	3,726,271	3,672,387	7,398,658
Louisiana.....	2,890,429	3,213,467	6,103,896
Maine.....	1,676,799	1,426,861	3,103,660
Maryland.....	1,750,738	2,061,751	3,812,489
Massachusetts....	3,262,885	4,210,833	7,473,718
Michigan.....	6,301,414	6,765,197	13,066,611
Minnesota.....	5,277,145	5,395,441	10,672,586
Mississippi.....	3,457,552	3,241,475	6,699,027
Missouri.....	6,012,652	6,142,153	12,154,805
Montana.....	3,676,416	2,722,327	6,398,743
Nebraska.....	3,870,739	3,556,441	7,427,180
Nevada.....	2,243,074	887,260	3,130,334
New Hampshire....	945,225	822,484	1,767,709
New Jersey.....	3,129,805	3,983,826	7,113,631
New Mexico.....	2,871,397	1,725,286	4,596,683
New York.....	11,046,377	13,577,189	24,623,566
North Carolina...	4,720,173	4,823,958	9,544,131
North Dakota.....	2,867,245	3,207,473	6,074,718
Ohio.....	7,670,815	8,439,897	16,110,712
Oklahoma.....	4,580,670	5,004,711	9,585,381

State	Highways, roads, and streets	Grade-crossing elimination	Total
Oregon.....	$3,038,642	$2,334,204	$5,372,846
Pennsylvania.....	9,347,797	11,483,613	20,831,410
Rhode Island.....	989,208	699,691	1,688,899
South Carolina...	2,702,012	3,059,956	5,761,968
South Dakota.....	2,976,454	3,249,086	6,225,540
Tennessee.....	4,192,460	3,903,979	8,096,439
Texas.....	11,989,350	10,855,982	22,845,332
Utah.....	2,067,154	1,230,763	3,297,917
Vermont.....	924,306	729,857	1,654,163
Virginia.....	3,652,667	3,774,287	7,426,954
Washington.....	3,026,161	3,095,041	6,121,202
West Virginia....	2,231,412	2,677,937	4,909,349
Wisconsin.....	4,823,884	5,022,683	9,846,567
Wyoming.....	2,219,155	1,360,841	3,579,996
Dist. of Columbia	949,496	410,804	1,360,300
Hawaii.....	926,033	453,703	1,379,736
Reserved for engineering, supervision, and administration.....	5,000,000	4,000,000	9,000,000
Total.....	200,000,000	200,000,000	400,000,000(a)

(a) Subsequent to the above allocations, $378,135 of this allotment was withdrawn by Presidential order, reducing the allotment to $399,621,865. The $378,135 recision was made applicable to the administrative fund.

(c) FEDERAL-AID SECONDARY OR FEEDER ROADS

Appropriation Act, 1937.....	- - - -
Budget Estimate, 1938.....	$5,000,000(1)
Increase.....	5,000,000

(1) The 1938 estimates for Federal-aid secondary or feeder roads are included in the Budget under the section "General Public Works Program", page 118.

Section 7 of the Act of June 16, 1936 (49 Stat., p.1521) authorized an appropriation of $25,000,000 for each of the fiscal years 1938 and 1939 to be expended for secondary or feeder roads pursuant to the provisions of the Federal Highway Act. The $5,000,000 in the Budget is the estimated amount of cash which will be required during 1938 under the $25,000,000 authorized for 1938, leaving $20,000,000 for subsequent appropriation.

WORK UNDER THIS APPROPRIATION

This appropriation is made for the construction of secondary or feeder roads, including farm-to-market roads, rural free delivery mail roads, and public-school bus routes. Although highway funds provided in the emergency legislation were made available for the improvement of roads of this character, the Act of June 16, 1936 contained the first authorization for such work in the regular Federal-aid legislation. As required by that Act, the funds are to be apportioned and expended in the same manner

as regular Federal-aid appropriations, equal weight being given to the three factors of area, population, and mileage of post roads. It will be necessary for the States to match their apportionments, so that the $25,000,000 authorization for 1938 will provide a $50,000,000 program of construction of secondary or feeder roads.

(d) ELIMINATION OF GRADE CROSSINGS

Appropriation Act, 1937.....	- - - -
Budget Estimate, 1938.....	$10,000,000(2)
Increase.....	10,000,000

(2) The 1938 estimates for Elimination of grade crossings are included in the Budget under the section "General Public Works Program", page 118.

Section 8 of the Act of June 16, 1936 (49 Stat., p.1521) authorized an appropriation of $50,000,000 for each of the fiscal years 1938 and 1939 to be expended for the elimination of grade-crossing hazards pursuant to the Federal Highway Act, as amended and supplemented, except that no part of such funds apportioned to any State need be matched by the State. The $10,000,000 in the Budget for 1938 is the estimated amount of cash which will be required during 1938 under the $50,000,000 authorized for 1938, leaving $40,000,000 for subsequent appropriation.

WORK UNDER THIS APPROPRIATION

This appropriation is made for the elimination of hazards to life at railroad grade crossings, including the separation or protection of grades at crossings, the reconstruction of existing railroad grade-crossing structures, and the relocation of highways to eliminate grade crossings. While the elimination of hazards to life at railroad grade-crossings has always formed a part of the regular Federal-aid program, and $200,000,000 was specifically allotted for this type of work exclusively from the funds provided in the Emergency Relief Appropriation Act of 1935, this is the first authorization exclusively for such work in regular Federal-aid legislation. The funds authorized are to be apportioned among the States (including Hawaii and the District of Columbia) in accordance with the formula set up in the Hayden-Cartwright Act of June 16, 1936, i.e., one-half on the basis of population, one-fourth on the mileage of the Federal-aid highway system, and one-fourth on the mileage of railroads. These funds are made available to pay the full cost of construction without being required to be matched with State funds as in the case of other regular Federal-aid apportionments.

(e) PUBLIC LANDS HIGHWAYS

Appropriation Act, 1937.....	- - - -
Budget Estimate, 1938.....	$2,500,000 (1)
Increase.....	2,500,000

(1) The 1938 estimates for Public lands highways are included in the Budget under the section "General Public Works Program", pages 118 and 119.

Section 3 of the Act of June 16, 1936 (49 Stat., p. 1520) authorized $2,500,000 to be appropriated for each of the fiscal years 1938 and 1939 pursuant to the provisions of Section 3 of the Federal Highway Act as amended by the Act of June 24, 1930 (U. S. C., title 23, sec. 3). The $2,500,000 estimated in the Budget for 1938 is in fulfillment of the $2,500,000 authorized for 1938; and the appropriation is made immediately available and to remain available until expended.

Cancellation of 1937 Authorization

The Act of June 18, 1934 (48 Stat., p. 994) authorized appropriations of $2,500,000 for each of the fiscal years 1936 and 1937 for public lands highways. The Agricultural Appropriation Act for 1937 cancelled the 1937 authorization for that fiscal year and made the 1937 authorization applicable to the fiscal year 1938. However, since the Act of June 16, 1936 authorizes an appropriation of $2,500,000 for public lands highways in 1938, the 1938 Budget provides for the rescindment of the authorization contained in the 1937 Agricultural Appropriation Act, in the following language:

> "Provided, That the authorization of $2,500,000 for the survey, construction, reconstruction, and maintenance of public lands highways made applicable to the fiscal year 1938 by the Agricultural Appropriation Act, fiscal year 1937, is hereby cancelled."

WORK UNDER THIS APPROPRIATION

This appropriation is made for the survey, construction, reconstruction, and maintenance of main roads through unappropriated or unreserved public lands, non-taxable Indian lands, or other Federal reservations other than forest reservations under the provision of Section 3 of the Federal Highway Act, as amended by the Act of June 24, 1930 (U. S. C., title 23, sec. 3). The funds are apportioned among the so-called "public land States", i.e., States having more than 5 percent of their area in certain public lands, in the proportion that such lands in each State bears to the total area of such lands in all the eligible States. The following apportionment of the $2,500,000 authorization for 1938 has been made:

State	Sum apportioned
Arizona	$378,077
California	235,638
Colorado	88,688
Idaho	122,609
Montana	137,774
Nevada	560,201
New Mexico	206,844
North Dakota	32,611
Oklahoma	28,935
Oregon	168,367
South Dakota	54,497
Utah	256,296
Washington	38,349
Wyoming	191,114
Total	2,500,000

(f) PUBLIC LANDS HIGHWAYS, EMERGENCY CONSTRUCTION
(Act of July 21, 1932)

The schedule submitted in the Budget shows obligations of $7,930 during 1936 out of funds provided by Emergency Relief and Construction Act of 1932. The availability of this appropriation for obligations expired on June 30, 1936.

(g) MOUNT VERNON MEMORIAL HIGHWAY

The schedule submitted in the Budget shows obligations of $2,292 during 1936 and estimated obligations of $10,000 during 1937 and $79,838 during 1938 out of balances from prior-year appropriations.

(h) EMERGENCY RELIEF, AGRICULTURE--PUBLIC ROADS,
HIGHWAYS, ROADS, AND STREETS

The schedule submitted in the Budget shows estimated obligations of $8,234,069 for 1937 from an allotment under the Emergency Relief Appropriation Act of 1936, to construct, surface, resurface, grade, repair or improve or to aid in constructing, surfacing, resurfacing, grading, repairing or improving highways, roads and streets and work incidental thereto, including bridges located thereon which were damaged or destroyed as a result of the floods of 1936. All work is to be on non-Federal publicly-owned property or upon property where the necessary easements have been obtained by local authorities; and no Federal funds are to be used for the purchase of land or for the payment of easements.

(i) INTER-AMERICAN HIGHWAY
(Transferred from State Department)

The schedule submitted in the Budget shows $132,863 obligated during 1936 and estimated obligations of $867,137 during 1937 out of a State Department allotment, provided by the Deficiency Appropriation Act, fiscal year 1934, approved June 19, 1934.

(j) PUBLIC WORKS ADMINISTRATION ALLOTMENT
(Roads at Beltsville, Md.)

The schedule submitted in the Budget shows $2,151 obligated during 1936 and estimated obligations during 1937 of $88 from funds provided by the Emergency Appropriation Act, 1935, for improvement of roads at Beltsville, Maryland.

(k) FEDERAL EMERGENCY ADMINISTRATION OF PUBLIC WORKS
(Supervision of Miscellaneous Road Projects)

The schedule submitted in the Budget shows obligations of $84,816 during 1936 and estimated obligations of $100,000 during 1937 out of allotments made by Public Works Administration for engineering, inspection, and supervision of non-Federal road projects.

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BUREAU OF PUBLIC ROADS
DETAILED EXPENDITURE STATEMENT

The following table shows actual expenditures in 1936 and estimated expenditures in 1937 and 1938 for all purposes under total funds administered by the Bureau of Public Roads:

	EXPENDITURES		
	Actual 1936	Estimated 1937	Estimated 1938
General administration	$282,940	$309,505	$309,505
Engineering, supervision, and fiscal control	786,321	763,720	763,720
Engineering, supervision, and inspection (field):			
Regional office and Hawaii (headquarters, San Francisco, California)	96,677	118,410	118,410
District No. 1 (headquarters, Portland, Oregon)	212,580	221,684	221,684
District No. 2 (headquarters, San Francisco, California)	245,356	239,896	239,896
District No. 3 (headquarters, Denver, Colorado)	155,102	135,000	135,000
District No. 4 (headquarters, St. Paul, Minnesota)	205,148	223,598	223,598
District No. 5 (headquarters, Omaha, Nebraska)	140,549	158,330	158,330
District No. 6 (headquarters, Fort Worth, Texas)	289,786	292,440	292,440
District No. 7 (headquarters, Chicago, Illinois)	147,830	153,645	153,645
District No. 8 (headquarters, Montgomery, Alabama)	272,608	282,925	282,925
District No. 9 (headquarters, Albany, New York)	297,968	297,701	297,701
District No.10 (headquarters, Washington, D. C.)	188,965	198,715	198,715
District No.11 (headquarters, Juneau, Alaska)	29,397	27,450	27,450
District No. 12 (headquarters, Ogden, Utah)	102,904	97,185	97,185
District No. 14 (headquarters, Spartanburg, South Carolina)	160,937	183,060	183,060
District office, eastern parks and forests (headquarters, Washington, D. C.)	63,796	74,340	74,340
Total, Engineering, supervision, and inspection (field)	2,609,603	2,704,379	2,704,379
Highway information and publications	168,209	122,140	122,140
Studies and investigations of highway materials and structures:			
Non-bituminous road materials	39,231	39,800	39,800
Bituminous road materials	30,093	50,200	50,200
Highway subgrades	34,957	45,600	45,600
Structural design of pavement and bridges	34,074	47,500	47,500

	EXPENDITURES Actual 1936	Estimated 1937	Estimated 1938
Cooperative research, special investigations, general operating costs, etc.	$134,320	$99,008	$99,008
Total, studies and investigations of highway materials and structures. . .	272,675	282,108	282,108
Studies and investigations of highway transportation:			
Highway planning surveys	232,975	426,363	375,000
Safety studies	9,424	75,000	19,120
Miscellaneous and general investigations . . .	85,706	109,625	109,625
	328,105	610,988	503,745
Studies of highway construction and maintenance methods and costs	111,162	81,815	76,815
Total for engineering, supervision, research, and administration (all items above).	4,559,015	4,874,655	4,762,412
Payments to States	229,245,966	358,643,101	308,038,845
Bureau of Public Roads construction	10,040,079	8,141,500	8,485,000
Miscellaneous construction items	188,466	1,668,939	538,039
Total funds available directly to Bureau of Public Roads	244,033,526	373,328,195	321,824,296
Actual and estimated expenditures by other Federal agencies for work under the supervision of the Bureau of Public Roads:			
Public Works Administration dockets . .	14,032,126	16,000,000	20,000,000
National Park work	8,239,298	10,245,320	12,000,000
Work-relief highways, P. W. A.	3,757,671	5,743,043	- - - -
Total for work paid for by other agencies	26,029,095	31,988,363	32,000,000
Grand total of work under supervision of Bureau of Public Roads	270,062,621	405,316,558	353,824,296
Percentage of total funds allocated to engineering, supervision, research, and administration	1.7	1.2	1.3

BUREAU OF AGRICULTURAL ENGINEERING

(a) GENERAL ADMINISTRATIVE EXPENSES

Appropriation Act, 1937	$37,600
Budget Estimate, 1938	37,600

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
General administration and business service	$37,560	$37,600	$37,600
Unobligated balance	40	- -	- -
Total appropriation	37,600	37,600	37,600

WORK UNDER THIS APPROPRIATION

This appropriation covers the general supervisory work of the Bureau and the accounting, recording, and administrative correspondence work in the Washington office.

(b) AGRICULTURAL ENGINEERING INVESTIGATIONS

Appropriation Act, 1937	$400,669
Budget Estimate, 1938	430,669
Increase	30,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Advice and assistance	$27,644	$27,700	$27,700	- -
2. Farm irrigation investigations	99,988	102,600	122,600	+$20,000 (1)
3. Farm drainage investigations	45,961(a)	41,100	41,100	- -
4. Farm mechanical equipment	106,954	89,300	89,300	- -
5. Farm buildings and related investigations	58,135	75,400	85,400	+10,000 (2)
6. Machinery for processing farm products -- cotton ginning	35,165	51,200	51,200	- -
7. Farm operating efficiency investigations	8,707	13,369	13,369	- -
Unobligated balance	3,115	- -	- -	- -
Total appropriation	385,669	400,669	430,669	+30,000

(a) Includes $2,000 transferred to Department of Commerce for cement tests.

INCREASES

The increase of $30,000 for 1938 consists of:

(1) An increase of $20,000 for extending research in the semi-arid regions of the United States to develop economical means of furnishing small supplies of irrigation water. During the past three years a large number of small reservoirs have been built on farms in the Plains region and in the dry-farming areas of the Intermountain States. Many of these reservoirs have failed; in some the dams have been washed out, in others the water has seeped out of the reservoir, while in many cases the water supply has proven inadequate. It is proposed to develop economical means of furnishing small supplies of irrigation water as a safety measure. The investigation will cover the development of dependable sources of supply, economical methods of making such supplies available when needed, determination of the feasible methods of use, and studies of the water requirements of the crops and vegetables to be grown under irrigation. On account of the wide variations in source, quality, and quantity of water supplies and in the use that is to be made of them, it is proposed to carry on the investigation concurrently in each of the principal subdivisions of these areas so that the results of the investigation may be applied widely at the earliest possible date.

(2) An increase of $10,000 for developing better buildings and methods for storing corn on farms. The need for this work is particularly urgent in connection with the making of Government loans on the security of corn stored on farms, in connection with crop-insurance studies, and in investigating the stabilization of corn supplies through storage of surpluses from good years into bad. Such phases of the current agricultural program are economically sound only when crops are so safely stored that deterioration or loss of quality is kept to a minimum. In years such as 1935, when the corn crop is late in maturing, farmers suffer very large losses due to molding and heating of the corn before it dries enough to keep safely on the ear or to be shelled for commercial handling and drying. Such deterioration of corn on which Government loans had been made might involve serious losses of Government funds. It is believed that such losses can be materially reduced by improvements in types of storage buildings and in methods of handling the newly harvested corn. The Department is developing methods of safe storage for wheat but has done little research work on corn storage on farms. It is proposed to study the problems in cooperation with State experiment stations in typical "soft-corn" areas.

WORK UNDER THIS APPROPRIATION

General.--The work under this appropriation consists chiefly of research on the engineering problems of agriculture. These problems are included in the fields of farm irrigation; farm drainage; farm machinery, farm power, and rural electrification; farm buildings; cotton ginning; and the development of farm lands to make possible their most economical and effective utilization. On request, the Bureau also renders engineering service to other bureaus of the Department with respect to the facilities and equipment required in their work.

1. Advice and Assistance.--This item covers such informational activities as preparation of Farmers' Bulletins and leaflets, the preparation and sending out of plans and drawings relating to farm structures, the handling of subject-matter correspondence with the public, the preparation of motion pictures, and

such other activities as are involved in making available to the public information to be applied direct. The project does not include bulletins presenting results of research as such bulletins are charged against the particular research project involved.

2. Farm Irrigation Investigations.--The greatest problem facing irrigation farmers generally throughout all the Western States is the growing scarcity of irrigation water, which has been brought about through more complete settlement, by the introduction of late-maturing crops such as sugar beets, corn, and fruits which require more irrigation water than early crops, and by the increasing use of water for purposes other than agricultural. To meet this need it is proposed to attack the problem from all possible angles, the first being the economical utilization of water in crop production. This involves the determination of the optimum amount of irrigation needed for different field crops and fruits and of the best method and time of application of water to secure the best results under different crop, soil, and climatic conditions. The second point of attack is the possibility of decreasing losses of water between the source of supply and the point of application. This involves studies of methods of decreasing losses due to evaporation, seepage, and the growth of aquatic plants in canals and ditches. Included also in this phase is the design and invention of apparatus for accurately measuring the quantity of water delivered to the farmer and the development of means for securing the economical conveyance of irrigation water. Another point of attack is the increase in the supply of irrigation water by the development of pumps and equipment for utilizing underground waters, the storage underground of spring flood waters for later use by means of pumps, and the development of diversion dams and desilting works which will make it possible to turn flood waters, which would otherwise be lost, directly into irrigation canals. The final point of attack is through possible reductions in the cost to the farmer of irrigation water. Studies now under way cover methods of controlling silt deposits in reservoirs and canals, the design of apparatus for the removal of gravel and sand from canals, and the development of cheaper methods of organizing and administering irrigation districts.

This project includes cooperative snow surveys for the purpose of forecasting irrigation water supplies. This work is of great value to the irrigation farmer whose source of supply is mountain snowfall, in that it enables him to adapt his cropping program to the amount of water which will become available during the growing season. Water shortages can be predicted before they occur and cropping plans can be made before planting time to fit the water situation.

3. Farm Drainage Investigations.--The major problem in farm drainage consists of the development of better methods and materials for the drainage of lands now in cultivation, with particular reference to the drainage of different soil types, the drainage requirements of different crops, and the development of alkali-resistant drain tile. Basic hydraulic information is being developed which when applied to the design of drainage ditches, tile drains, and pumping plants will result in greater efficiency and reduced costs. There are more than 84,400,000 acres of land in organized drainage enterprises upon which more than $680,000,000 has been expended for drainage works. Much of this land has been classified by the National Resources Committee as being among the best farm land in the country. In connection with the farming of these lands, one of the unsolved problems upon which work is being done is the development of effective and economical methods of maintaining the drainage works.

4. Farm Mechanical Equipment.--This project covers all the research work done by the Bureau in connection with the use of power and machinery on the farm. It includes projects having for their objects the development of better methods and machines for the production and harvesting of the staple crops grown throughout the country, special emphasis being placed upon studies of the use of equipment in the production of corn, cotton, and sugar beets. These studies have been under way for several years, during which time a number of mechanical devices have been developed which are much more efficient than the machines they replaced. Combinations of planting and cultivating methods with particular types of machines have been developed.

In cotton production the indications are that the costs can be materially reduced by choosing the right combination of methods and machinery. For example, experimental plots on one soil type showed a higher yield of cotton and better fiber characteristics where a few simple operations were performed as compared to a lower yield and poorer fiber characteristics where a much more elaborate seed bed was prepared.

The work with sugar beets has resulted in the development of a type of machine for thinning beets, which promises to be so successful in reducing the amount of hand labor required as to make it unnecessary to annually import large numbers of laborers from foreign countries for beet production. Beet harvesters have been studied for the past several years until now one type has been evolved which seems to be commercially acceptable. This machine lifts and tops the beets and discharges the beets and tops into separate rows or piles.

A special study is being made of machinery for distributing fertilizer for different plants and under different soil and climatic conditions. This project is carried on in cooperation with the Bureau of Plant Industry and thirteen State experiment stations. Some experimental machines have been constructed which promise to give excellent results in increased crop production, due to the proper placing and distribution of fertilizer. Farm machinery manufacturers are following these developments and have already incorporated certain features in their machines from which the farmers are deriving much benefit.

Special attention is being given to the development of mechanical means for the control of insect pests, including the corn borer, pink bollworm, and the Japanese beetle. This work is conducted in cooperation with the Bureau of Entomology and Plant Quarantine and has already resulted in the development of machines and implements, or attachments to the same, which have been very effective in destroying these insect pests. Various types of equipment have been designed for applying insecticides for the control of harmful or injurious insects and various types of spraying equipment have been studied in connection with this work. One type of vapor spraying seems especially promising.

5. Farm Buildings and Related Investigations.--This work includes investigations designed to develop better and more efficient farm structures for all uses. Recent surveys have indicated that one-sixth of all farm houses have deteriorated to a point where they should be replaced by new buildings and that the needed expenditures for bringing the remaining five-sixths to a desirable standard will run into billions of dollars. To assist farmers to obtain proper satisfaction from such vast expenditures it is necessary to make studies of conditions in farm houses and the possibilities for improvements. To this end the Wisconsin Agricultural Experiment Station and the Bureau of Agricultural Engineering are measuring conditions which affect the use, comfort, and lighting

of typical farm homes and are helping to plan improvements. Remodeling of the first two homes studied is almost completed by the owners. Measurements will be made in the improved houses to determine the benefits that have been obtained. Similar work on other types of houses is in progress. In Georgia, where high temperatures affect the comfort and well being of persons, animals, and stored products, methods of controlling temperatures in buildings by structural and other simple means are being investigated by the University of Georgia and this Bureau. Studies of heating and cooking equipment for farm use are also being undertaken.

Among the problems involved in the storage of farm products are potato storage in Maine, wheat storage in Illinois, Kansas, Maryland, Michigan, Minnesota, Ohio, and North Dakota, apple storage in Virginia, and the design of silos. The work also includes laboratory studies of the heat developed by stored products and of the transportation of fruits and vegetables.

To make generally available to farmers the results of research work dealing with farm structures, the 12 Northeastern State agricultural colleges and this Bureau have cooperated in the preparation of a catalogue of more than 100 plans selected for special merit, for the use of farmers, extension workers, lumber dealers, and rural contractors and builders. The plans illustrated will be made available through the extension services of the cooperating colleges.

6. Machinery for Processing Farm Products -- Cotton Ginning.--Work under this project consists of experimental laboratory studies designed to improve the equipment and methods employed in ginning cotton. Under a special appropriation heretofore made by Congress a cotton ginning laboratory has been built at Stoneville, Mississippi, and experimental ginning is in progress. Preliminary investigations have indicated certain parts of the process that apparently should be studied first and these are now being investigated. To secure the benefits that can reasonably be expected from this project it will be necessary to continue the work over a period of years. The project is being presented in cooperation with the Bureau of Agricultural Economics. A cotton drier which was developed in connection with this project has been placed in production by several manufacturers. It is proving to be both efficient and economical.

7. Farm Operating Efficiency Investigations.--This project has for its object the improvement of the operating efficiency of farms. It is evident that the size and shape of the fields, the condition of the fields as regards wet spots, steep hillsides, and stumps and stones, and the kind and amount of crops raised must be considered in determining the type and size of farm machinery which should be used. It is necessary that the individual farm be treated as a unit, with all the interlocking elements of the farm business in proper relationship. In order to secure such a balanced farming program, this project is being carried on in cooperation with farm management authorities. The investigations have involved the making of complete surveys of a number of farms which are typical of a section or State. A complete farm program is then prepared and the benefits which will be received by the farmer are determined after the improvements are made. To illustrate the necessity for this project, preliminary surveys have shown that on 18 farms in northern Minnesota, containing a total of 181 fields, the average size of field was 4 acres; on 10 farms in one county in North Carolina there were 218 fields having an average size of 2.03 acres. It is obvious that modern equipment can not be used and low-cost methods of production employed under these conditions. It has been found that by comparatively inexpensive rearrangement the average size of fields on the farms studied could be more than doubled. This project is considered to have great possibilities from the standpoint of effective utilization of land now under cultivation.

EMERGENCY FUNDS

(1) Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
Public Works Allotments (National Industrial Recovery Act):		
Rio Grande joint investigations: To develop basic information regarding the use of irrigation water on the upper Rio Grande. (Transferred from National Resources Committee).....	$18,831	$25,785
Emergency Appropriation Act, 1935 (Public Works Administration):		
Physical improvements at farm tillage experimental laboratory, Auburn, Alabama (completion of work begun in 1934).....	158	17,092
Emergency Relief Appropriation Act of 1935:		
Landscaping, paving, and fencing on laboratory grounds, Auburn, Alabama.....	3,195	- -
Addition of covered loading platform to cotton warehouse and rat-proofing same, Stoneville, Mississippi.....	3,956	- -
Total, Emergency Relief (1935)....	7,151	- -
Total, Emergency Funds (Direct Allotments).....	26,140	42,877

(2) Indirect Allotments

(Financed through other Government agencies)

Projects	Obligated, 1936	Estimated obligations, 1937
Emergency Conservation Work (authorized by Acts of March 31, 1933 and April 8, 1935; allotment through War Department):		
Work by engineers of the Bureau of Agricultural Engineering directing and supervising the operation of Civilian Conservation Corps camps engaged in the maintenance of drainage improvement in organized drainage enterprises.	$30,040	$23,135
Research investigations relating to maintenance of drainage improvements.....	- -	40,000
Total, Indirect Allotments.....	30,040	63,135

PASSENGER-CARRYING VEHICLES

The authorization for the purchase of passenger-carrying vehicles for the Bureau of Agricultural Engineering contemplates an increase of $3,400 ($3,000 in 1937, $6,400 estimated for 1938) for this purpose. This $6,400 will permit the needed replacement of 8 vehicles, at an average cost of $625 each when exchange allowances are taken into account, and the purchase of 2 additional vehicles, at an average cost of $700 each. These 2 cars will be required in connection with the additional work to be undertaken with the increased funds provided for in these estimates under the financial project "Farm Irrigation Investigations".

The automobile is practically indispensable for the proper conduct of the Bureau's work, since a great many of the points visited are in remote areas where public transportation facilities are very limited and in many cases not at all available. The Bureau has many experimental projects located on privately-owned farms, and it is sometimes necessary that employees go from farm to farm in checking up on these projects. Public conveyances are not available for such trips, but an automobile makes it possible to visit a number of farms in a day. The purchase and operation of Government-owned cars has been found from our experience to be more economical than either the hiring of commercial or the use of personally-owned cars of employees on a mileage basis.

None of the cars to be replaced are of a model more recent than 1933 and several of them date back to 1930 and 1928. These machines have been operated under practically all conditions of use, ranging from the hard-surfaced highways to extremely rough and unimproved roads in remote areas. Their average performance as of June 30, 1936 was approximately 48,000 miles and considerably more mileage will be added before they are actually turned in. In the experience of the Bureau, cars will not operate efficiently or economically beyond the mileage that these cars will have attained by July 1, 1937, and it appears to be distinctly in the best interests of the work to turn them in during that fiscal year.

BUREAU OF AGRICULTURAL ECONOMICS

(a) GENERAL ADMINISTRATIVE EXPENSES

Appropriation Act, 1937	$236,306
Budget Estimate, 1938	236,306

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
General administration and business service	$235,714	$236,306	$236,306
Unobligated balance	592	- -	- -
Total appropriation.....	236,306	236,306	236,306

WORK UNDER THIS APPROPRIATION

This appropriation provides for the general administration of the work of the entire bureau. It covers the activities of the chief and assistant chiefs of the bureau in formulating general policies to be acted upon by the various divisions of the bureau, as well as the direction and general supervision of all the research, service, and regulatory work. The appropriation also covers the various service units connected with the business administration of the bureau.

(b) FARM MANAGEMENT AND PRACTICE

Appropriation Act, 1937	$356,580
Budget Estimate, 1938	386,580
Increase	30,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Agricultural finance studies ...	$67,274	$74,977	$74,977	- -
2. Economic studies of land use....	81,363	82,840	102,840	+$20,000 (1)
3. Farm population and rural life studies	22,883	33,635	43,635	+ 10,000 (2)
4. Farm management studies	164,881	165,128	165,128	- -
Unobligated balance	7,679	--	--	- -
Total appropriation.....	344,080	356,580	386,580	+ 30,000

INCREASES

The increase of $30,000 in this item for 1938 consists of:

(1) An increase of $20,000 for a study of farm tenancy. Absentee ownership and consequent operation of farms by tenants or managers has increased rapidly in recent years owing to farm foreclosures. In the South the tenancy situation has become particularly acute and is a significant factor in any program of agricultural adjustment and soil conservation. The problem of tenancy is closely related to rational land use for the reason that landlord-tenant relationships frequently encourage the growing of soil-depleting cash crops rather than the development of a well-balanced rotation that will maintain soil fertility.

There is a growing public sentiment for the improvement of the American tenure system. This sentiment is indicated in part by proposed legislation aimed to improve the farm-tenure system. Passage of such legislation would, however, in no way lessen the importance of a thorough examination of the whole tenancy problem. In fact, it appears that a thoroughgoing analysis of the institution of tenancy in American agriculture is a prerequisite for the proper administration of such legislation. In view of the increasing interest manifest in this general problem it is highly desirable that the Bureau should undertake this study at the earliest possible moment in order to be prepared to furnish information both to Congress, if requested to do so in connection with consideration of legislation on the subject, and to those charged with the administration of such a measure if passed. The most recent and comprehensive study of the farm-tenancy situation that has been made in this country is the one published in the 1923 Agricultural Yearbook, and great changes have taken place since that time.

Among the specific questions which such a study should cover are the following: (a) An up-to-date analytical summary of the facts with respect to farm tenancy, showing trends and using census material and other data that may be available; (b) a study of the effects of soil conservation programs on tenants; (c) the concentration of ownership, absentee ownership, including trends and their bearing on tenancy; and (d) the relation of tenancy to types of farming, to production of surplus crops, to land use, and to soil depletion, including erosion.

(2) An increase of $10,000 for a study of population migration in rural areas. The purpose of this project is to discover trends, destinations, sources, and selective influences in the migration of population to and from selected rural areas. The importance of this study cannot be over-emphasized at present in view of the pronounced changes due to depression, drought, industrial decentralization, all-weather roads, automobiles, rural electrification, and other factors. The relief authorities have been urging such studies for some time. They are basic to long-time planning, especially as related to land utilization.

WORK UNDER THIS APPROPRIATION

General.--Research under this appropriation deals chiefly with the economics of farm production. Investigations are made to determine the types of farming in various geographical units and the factors which shape such types. Where it appears that adjustments can be made to advantage these are pointed out. Work is carried on to determine the most effective form of organization of farms, including size, crops and livestock grown, financial and labor organizations, and other matters concerning the farm as an economic

producing unit. Analyses are made of the problems of farm-mortgage financing and production and marketing credit. Farm taxation is studied and information published on trend in tax burdens, farm tax delinquency, and possible farm tax reductions through economies in rural government and changes in taxation. Studies of farm insurance, farm population movements, standards of living, and various other farm problems are also being made. Research work on land economics is directed toward formulating a definite, consistent, and unified land policy that will provide a planned utilization of all land resources. Close cooperation is maintained with the soil conservation and resettlement activities of the Department.

1. Agricultural Finance Studies.--This project covers studies of farm credit, farm taxation, and farm insurance.

Through the credit studies, information is obtained and made available on amounts, distribution, and trends of farm-mortgage debt; prevailing costs and other terms and conditions of loans from each source; factors affecting terms, and conditions of production and marketing credit as well as of mortgage credit; influences of monetary policies upon supply and cost of credit for agriculture; the place of merchant credit in farm finance; the relation of types of farming to the supply of production credit, etc.

More complete information on the extent of farm-mortgage indebtedness is being obtained through cooperation with the Census Bureau in sending out 400,000 special schedules to individual farmers; obtaining recordings of farm mortgages filed and released, covering 900 counties in all 48 States, as a part of the Works Progress Administration; and obtaining special reports through local Farm Credit Administration representatives.

The most complete estimate of agricultural loans of commercial banks has been completed during the past year, as well as a monthly index on world industrial production, 1920-25, and reports on farm bankruptcies and other subjects.

During the past 3 years studies have been made of the loan and investment policies of country banks in Arkansas, Wisconsin, and Utah. Data obtained from personal study in the banks have been supplemented with information supplied by the Comptroller of the Currency, Federal Reserve banks, and State departments of banking. Special attention has been given to the experience of country banks with various types of loans to farmers and the comparative experience with loans to local business concerns, many of which extend credit to farmers. These studies have pioneered in certain fields of country bank analysis and may prove to be of substantial influence, since bankers' associations in 42 States are initiating studies among their members upon subjects similar to those covered by these studies.

The increasingly heavy burden of taxation upon the farmer led the Bureau of Agricultural Economics to institute studies of the farm-taxation problem in 1924. Since 1927 data have been gathered continuously and have been in great demand by State and Federal agencies and agricultural workers.

The Bureau obtains information by States to (1) average tax per acre on farm land, (2) total taxes paid on farm property, and (3) the relation

of taxes to value of farm real estate since 1913. Estimates have been obtained also by States of the amount of rural tax delinquency each year from 1928 to 1932, amounts of delinquent taxes paid each year, acreage, assessed valuation, types of property involved, and other characteristics of the delinquency, etc. Corresponding information is being obtained also on tax sales, records of land transfers, and other data. Current farm real estate tax per $100 of real estate value, according to preliminary studies, declined slightly between the 1934 and 1935 levies due to an increase in real estate values. Likewise farm income increased significantly in 1933 and 1934, thus showing a reduction in taxes in relation to income, although the tax per acre has remained approximately the same. The Bureau's series of annual farm real estate tax figures since 1913 has been extended through the tax year 1934. The index number for that year stands at 154 percent of the 1913 base, compared with the preliminary figure of 151 reported a year ago. Collection of data for computation of the 1935 index number is now in progress.

The farm-insurance studies deal with problems of insurance protection for farmers against loss from fire, windstorm, hail liability, and other hazards to property and persons on the farm.

2. Economic Studies of Land Use.-- Information is gathered from every available source and is compiled and analyzed for the purpose of furnishing information on changes in land utilization and probable future land requirements. The work is part of the effort to formulate a definite and unified land policy which will provide a planned utilization of all land resources according to the uses for which the various types and grades of land are best fitted.

The work is closely associated with that of the Resettlement Administration. The plan of the Bureau of Agricultural Economics is chiefly to carry on research which includes the fact finding and analysis necessary to provide a sound basis for the practical steps involved in actively establishing purchase areas, acquiring title to land, and arranging for its management.

Cooperative studies are carried on with State and local agencies which aim to outline for each area studied the economic and social conditions, problems, and tendencies and to develop for such area a detailed program that will facilitate needed readjustments. General surveys are made also to determine the extent, distribution, location, and present economic status of lands which private owners have found difficult or impossible to utilize and to determine desirable public policies to bring about the readjustments indicated. An annual survey is made for the purpose of providing a critical and unbiased appraisal of current changes in the farm real-estate situation with particular reference to changes in values, frequency of voluntary and forced sales of farms, and the effects on values of such factors as income taxation, credit policies, methods of handling distressed real estate, and other economic problems. The eleventh number of the series "The Farm Real Estate Situation, 1935-36" has been published. Assistance is given also to other Departments in appraising land to be acquired by the Federal Government. Studies are made also of the methods and experiences of public and private land settlement agencies for the purpose of supplying unbiased information to persons desirous of purchasing lands or of establishing settlement projects. Assistance is given also to various agencies in directing the expansion of agriculture to those areas best suited to farming and to assisting prospective settlers to establish themselves in accordance with

sound economic principles. Information is assembled also concerning the farm tenancy and ownership situation.

3. Farm Population and Rural Life Studies.--This project covers studies of the composition and changes in the rural population, rural community organizations and institutions, and the social and economic factors involved in the expenditures of farm families for living purposes.

Information is compiled on the trends of farm population, the causes of movements to and from the farm and other economic aspects of population shifts, including an annual estimate of the number of persons living on farms. Population migration is a vital factor in maintaining the balance between agricultural and industrial activities, and information on the subject has been eagerly sought by agricultural workers throughout the United States. Population research underlies land-use planning, rural rehabilitation, and agricultural adjustments.

Information is being gathered covering the extent to which farmers find part-time employment in local industries and the effect of such activities on the farm family living. Expenditures of farm families have been obtained and analyzed as an index to the economic situation in various localities.

Studies are being made of the conditions affecting the supply of and demand for farm labor in various parts of the United States under different systems of farming and of the special social and economic problems created by migratory farm labor.

4. Farm Management Studies.-- Studies are made of the management of the farm for the purpose of finding out how farms can be organized as to size, kinds of crops, combination of crops and livestock, etc., to produce the best results. Farm organization and management studies are made in which the whole physical and financial organization and operation of the farm is studied through obtaining figures from representative farmers in different type-of-farming areas. An important phase of these studies has to do with economy in farm organization and operation to determine how costs in farming can be reduced. Information is also gathered, compiled, and published annually on the cost of producing some of the principal agricultural products. The figures are published for separate regions of the country and for the United States as a whole. They indicate change in production costs from year to year and differences in costs in the various regions. As a result of these studies the Bureau is able to point out adjustments that may be made on individual farms and in various regions and type-of-farming areas to reduce costs, increase net returns, and adjust production to demand and market outlets. Continuous adjustments based upon full information are needed in bringing about desirable conditions in agriculture. As a basis of these adjustments there must be adequate information.

Farm management research, therefore, is an important link in the chain of research that makes available to farmers, farm organizations, and agricultural workers current facts on production and demand and probable future trends which will aid them in their farm plans. The results of such studies are indispensable in programs designed to reestablish farmers in agriculture

808,650
756,154
+ 52,496

and as a basis for determining economic units and types of organization that will enable farmers under our many different farming conditions to make a living and eventually pay for the farm out of its earnings. They furnish an excellent basis for program planning designed to stabilize production through adjustments in various parts of the country that will conform to sound farm management and soil conservation practices. A nation-wide project has been conducted along these lines in cooperation with the Agricultural Adjustment Administration and with all of the State experiment stations. In this study an effort was made to determine the extent and nature of production adjustments in various parts of the country that would balance and stabilize agriculture and at the same time bring about systems of farming that were most desirable from the standpoint of incomes and the conservation of our land resources.

EMERGENCY FUNDS

Direct Allotment

Projects	1937 (Estimated)
Emergency Relief Appropriation Act, 1936:	
Survey of farm mortgages, land values and transfers, and farm taxes	$1,521,140

(c) MARKETING AND DISTRIBUTING FARM PRODUCTS

Appropriation Act, 1937	$756,154
Budget Estimate, 1938	816,150
Increase	59,996

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Fruits and vegetables, marketing research on	$53,357	$55,229	$55,229	--
2. Livestock and meats, marketing research on	54,812	58,082	68,078	+$9,996 (1)
3. Dairy and poultry products, marketing research on	24,061	25,209	25,209	--
4. Hay, feed and seed, marketing research on	50,157	54,000	54,000	--
5. Cotton marketing and utilization research	48,105	50,410	50,410	--
6. Cotton standards, testing, and ginning research	140,805	141,932	176,932	+35,000 (2)
7. Grain standardization and marketing research	66,633	71,686	71,686	--
8. Analysis and statistical research on agricultural conditions and trends	120,973	125,518	125,518	--
9. General marketing studies	34,601	35,000	50,000	+15,000 (3)
10. Outlook reports on the agricultural situation	98,208	93,924	93,924	--
11. Interpretation and dissemination of information on marketing research	44,765	45,164	45,164	--
Unobligated balance	7,177	--	--	--
Total appropriation	743,654	756,154	816,150	+59,996

INCREASES

The increase of $59,996 in this item for 1938 consists of:

(1) An increase of $9,996 for studies in the development of grade standards for livestock and meats. Practically all work on livestock and meat standardization was dropped several years ago because of lack of funds. Demands for information on the subject have been increasing, however, as well as the need for grade standards in commercial transactions in livestock. More attention should be given to the grades of cattle. A bulletin and standards for yearling beef have been issued, but a companion bulletin and standards for yearling slaughter and stocker and feeder cattle should be prepared. Bulletins and standards for older slaughter cattle and their beef were prepared several years ago and should be checked and brought up to date.

The grades for hogs agreed upon in 1931 by the packers, the National Marketing Association, and the Bureau of Agricultural Economics have remained unchanged, but are in need of further research, and a bulletin describing the grades of hogs should be completed. When these grades have been perfected, they should be promulgated as the U.S. official grades for marketing hogs. Hogs are graded in many

localities according to makeshift standards and the number graded is increasing. It is urgent, therefore, that attention be concentrated on this problem and that standards for hogs be pushed to completion.

The demand for the meat-grading service of the Bureau has grown rapidly and it is important to the successful conduct of this service that more work be done on meat standardization. Standards for carcasses, some of cuts and some of manufactured products, have been established. Requests are being received constantly, however, from purchasing agencies utilizing the Federal meat-grading service for additional standards. The pressure for complete standards for all cuts and products has become so urgent that the full time of a standardization specialist is necessary for this purpose. The studies so far made in the application of standards for grades to grading work have shown the necessity for extending the standards to include more precise means for definitely determining quality. It is desired to develop mechanical means to assist the physical senses in determining relative tenderness in different grades of meats, the quantity of meat juices in selected sections of carcasses or cuts, the amounts of fats in relation to established commercial grades, and other factors. The present method of determining grade is largely by use of the senses. Graders must carry in their minds concepts of such things as conformation, color, distribution and character of fat, etc. Much further work is needed in developing color charts, models, etc., as an aid to proper grading.

(2) An increase of $35,000 for air-conditioning equipment (constant temperature and humidity control) for classing rooms, staple type preparation, and technical fiber and color laboratories and other scientific equipment for cotton standardization and testing research. The Bureau is charged with the duty and responsibility of establishing standards for cotton and of issuing practical forms to all persons who apply. The use of these standards is made mandatory in all transactions in interstate and foreign commerce in which standards are used. As a matter of fact, the purchase and sale of American cotton throughout the world is largely based on the official standards and no other standards are used in this trade. The Cotton Standards Act, moreover, makes certificates of classification issued by the Department prima facie evidence of correct classification in all United States courts.

Because of the hygroscopic nature of cotton and of the changes which its properties undergo with variations in the moisture content, it has been found necessary to prescribe standard conditions of the atmosphere in connection with the standards for staple length. Existing orders require a temperature of 70 degrees Fahrenheit and a relative humidity of 65 percent. Heretofore no provision has been made for maintaining standard conditions of the atmosphere in the classing and type preparation rooms.

Air-conditioning equipment and laboratory facilities are needed in the new building under construction at 12th and C Streets, S.W., in connection with the technological studies conducted under both the United States Cotton Futures Act and the United States Cotton Standards Act, as well as under cooperative agreement between the Bureau of Agricultural Economics and other agencies.

Other equipment, as well as permanent laboratory facilities, are needed to supplement the equipment of the existing fiber technological laboratory of the Department with laboratory facilities needed for the better promotion of its service work in perfecting and applying the Federal standards and for its

investigations relating to classification and to cotton quality. The fiber-testing equipment and conditions now at Washington are inadequate to allow the most effective handling of the problems and the most advantageous use of available personnel.

(3) An increase of $15,000 for general marketing studies, to be used as follows:

(a) $7,500 for a study of Federal, State, and local regulations affecting trade in agricultural products. Several kinds of restrictions to domestic trade in agricultural products have grown up during the past few years. These include laws, regulations, and ordinances concerning public health, grading and marketing, plant and animal quarantines, zoning, and some forms of taxation. Many of these regulations have the effect of interfering with the free flow of trade between States. The development of a sound program of marketing legislation requires a careful study of the economic effects of such regulations and laws as are now in effect. As a first step to this end, the Bureau has undertaken the collection and summarization of Federal-State legislation in this field and plans to follow it with a study dealing with the degree and cost of enforcement of such laws and with their economic effects on various groups of producers, consumers, and dealers.

The proposed studies would be carried out in close cooperation with various State agencies. Their purpose would be to reach some common understanding as to which kinds of regulation could best be performed by the Federal Government and which kinds by the State and municipal governments. They should also throw light on the benefits and disadvantages of various kinds of regulation from the standpoints both of the producer and of the consumer and thus help to bring about a better understanding of the kinds of marketing regulations which are likely to be of greatest benefit not only to local producer groups but also to the general public.

(b) $7,500 for a study of the relation of consumers' cooperative buying to agricultural income and prices. There is a rapidly growing interest in the consumer cooperative movement. While it has not as yet assumed large proportions in the United States, this interest in it, together with its importance in foreign countries, indicates the need for consideration of the subject in the research program of the Bureau of Agricultural Economics.

Farmers are interested in the consumers' cooperative movement, first, as consumers for the cooperative purchasing of farm supplies and consumption; and, secondly, as producers in selling to organized groups of consumers. The proposed research will be concerned primarily with this second phase of farmers' interest; i.e., it will relate to the marketing of farm products through consumers' cooperatives.

The purpose of this study will be to show the relationship between the consumers' cooperative movement and agriculture and to measure the benefits to producers of farm products. The study should indicate the possible savings in the marketing of farm products through the consumer cooperatives and the distribution of these savings between producers, workers, and consumers. It should also indicate how the Department's grading and standardization services for food products might be applied with increased advantage both to producers and consumers. Out of the study should come certain suggestions as to types of

organization needed on the part of producers to complement consumer organizations and methods by which producers might work with organized groups of consumers to the advantage of both.

Several other departments of the Government are carrying on work relating to the cooperative movement. None of these agencies, however, is or will be concerned with the problems arising in connection with consumer cooperatives which the Bureau of Agricultural Economics proposes to study.

CHANGES IN LANGUAGE

The language of this paragraph has been amended to make $35,000 of the appropriation immediately available. This change ties up with the increase of $35,000 requested under this item for air-conditioning and other laboratory equipment for the new building which will house the cotton-fiber research and cotton classing work. It is now expected that this building will be ready for occupancy around the first of April and that the building which is now being used for this project will be razed. Since practically all the technical cotton work is dependent upon having controlled air conditions, it is desired that funds be made available for the installation of this equipment as soon as the building is completed.

WORK UNDER THIS APPROPRIATION

General.-- This appropriation provides for economic and statistical research covering most of the important farm products. Analyses are made of the great volume of statistics gathered largely by the various activities of the Bureau in order to establish the statistical position of each agricultural product. These data are published in annual outlook reports, in periodic bulletins on the agricultural situation and price situation, and in other releases and are carried direct to the farmer by the farm-management and other workers of the Bureau and of cooperating agencies. The Bureau cooperates with the Agricultural Adjustment Administration and other branches of the Department in carrying out the agricultural conservation programs.

Problems connected with the handling, grading, packing, shipping, and marketing of products are studied and recommendations are made for improvements. Numerous laboratory studies are carried on, such as spinning and ginning tests of various types and grades of cotton, and milling, baking, and other tests connected with the grading of grain are made. Extensive research is conducted concerning problems connected with the grading of farm products. Standardized grades have been prepared for a large number of products, and demonstrational work is under way to educate the producers and the trade in their use. Work on standards which are of practical use to consumers and on methods of labeling so as to carry through to the consumer the evidence of quality are receiving increased attention.

1. Marketing Research on Fruits and Vegetables.--The object of this work is to bring about improvement in the handling and marketing of fruits and vegetables and to develop standards and grades for universal use as a guide to the fruit and vegetable industry. Grade standards defining in detail the quality and size requirements and tolerances for 57 of the most important fresh fruit and vegetable crops have been worked out and published. Much attention

is being given to grades for canning crops and to the revision of grades so as to meet changing requirements.

At no previous time has there been more interest in studies on the marketing of fruits and vegetables. Efforts are being made to eliminate waste and to obtain more efficient distribution. All such studies, as well as the development and operation of marketing agreements, are dependent on basic information on shipments and market receipts. The statistical bulletin issued during the year entitled "Carlot Shipments of Fruits and Vegetables from Stations in the United States, 1932 and 1933" and a similar one, under preparation, covering shipments during 1934 and 1935, together with the bulletin "Carlot Shipments and Unloads of Important Fruits and Vegetables for the Years 1933 and 1934," supply necessary and widely used basic marketing information. Mimeographed reports on shipments and unloads for 1935 have also been issued.

The Bureau receives many inquiries relating to the preparation for market of various fruits and vegetables. The use of the best methods of grading, sizing, packing, etc., assists in eliminating waste and in obtaining for growers and shippers higher returns. Recent changes in methods of marketing and in containers used have created a demand for the bulletins which have gone forward for publication on the preparation for market of various fruits and vegetables.

2. Marketing Research on Livestock, Meats, and Wool.-- One of the principal objects of this project is to develop and bring about the universal use of uniform grade standards for all classes of livestock and meats. This work has resulted in the culling of undesirable individuals from breeding herds, better knowledge of grades, grading, market requirements and time to market, and better financial returns to the producers. Producers are getting a better understanding of markets, methods of marketing, market values, and consumer preferences for qualities and a broader working knowledge of the economic forces affecting the livestock industry. The range States, where most of the work has been done, have been especially benefited and decided progress has been registered as a result of this work. Producers in Virginia and West Virginia and other neighboring States claim better net returns as a result of lamb-grading and marketing programs in their States. In addition, studies are conducted which aim to bring about improvements in the methods of handling these commodities and a lowering of costs. These studies involve surveys of supply and demand conditions, transportation facilities, preparation, manufacture, storage, and distribution of meats and meat products, relative costs and prices of meat animals and of their products under various systems of marketing, and the economic factors bearing upon the efficiency of marketing methods and on the stability of market conditions.

3. Marketing Research on Dairy and Poultry Products.--The object of this work is to conduct thorough studies of the marketing of dairy and poultry products, including methods and costs of their preparation for market, etc. Standards are prepared for the various products and their use explained and demonstrated. Studies are also made of the production, marketing, distribution, and consumption of these products, price quotations, and trade and exchange practices. Assistance is given in meeting special problems resulting from changing conditions and in working out more efficient and economical methods and practices. Consumer demands and preferences are being studied and more complete data on utilization are being compiled and published.

4. Marketing Research on Hay, Feed, and Seed.-- This project covers studies of methods and practices in connection with the marketing of various types of hay, alfalfa and alfalfa meal, beans, soybeans, peas, seeds, etc. Assistance is given on special problems, and efforts are made to work out improvements in methods leading to the more efficient and economical handling of these products. Standards have been prepared for many of the commercial classes of hay, beans, soybeans, and peas but much research and educational work remains to be done, and standards are needed for products which are becoming important in certain sections such as cowpeas and peanut hay.

Because of the increased interest in hay, as well as the production and utilization of all kinds of forage as feed for animals, there is now a much greater interest in the study of the factors of quality in hay and other types of forage than ever before. Much cooperative work is being carried on with State colleges and other agencies. The Bureau furnishes standard grade samples and conducts demonstrations in grading. Much laboratory work is conducted in order to perfect the standards for various commodities.

5. Cotton Marketing and Utilization Research.--Studies are made of methods of marketing cotton and cottonseed throughout the entire chain as a means for determining the services rendered by the various marketing agencies, the costs, prevailing margins, and relative efficiency of various methods. The work aims to provide a factual basis for improving market conditions and practices and to bring about better coordination of market procedure with the crop-improvement programs and with spinners' requirements and preferences relative to cotton quality.

Much information has been published on the extent to which prices paid by manufacturers and in central markets are reflected back to growers and on the relationship between prices paid to growers and prices prevailing in futures markets, but further research and educational work is needed. Information is being gathered also on the extent to which prices received by growers reflect differences in quality, in order to assist producers of better qualities to obtain the premiums to which they are entitled and also to stimulate the production of better grades of cotton.

Studies of cotton utilization are carried on in cooperation with mills and other industries engaged in processing or using cotton, and information is obtained from secondary sources such as the Census reports, and reports of the Cotton Textile Institute and other trade associations. Data regarding quantitative and qualitative requirements of cotton mills and various other industries are obtained, as well as information regarding the factors affecting the consumption of various qualities of cotton, such as machinery, labor costs, kind of goods produced, general business conditions, and competing products. These data and the supplementary information are collected, analyzed, and made public. Utilization studies indicate the probable demand or future requirements for cotton and point the way to the fields in which the most effective work can be done in finding new uses and extending present uses for cotton. Actual work in developing new and more suitable cotton fabrics for specific purposes is accomplished by laboratory and commercial mill tests in cooperation with the Textile School of the University of North Carolina and with individual manufacturing plants.

6. Cotton Standards, Testing, and Ginning Research.-- It is the purpose of these studies to relate the various fiber properties to more fundamental physical constants; to find the relations between the fiber properties and the properties of the manufactured products; to provide practicable methods for recognition of the properties and comparison with the standards; and to supply more accurate controls for graduation, establishment, and reproduction of the standards. It is the purpose of still other studies to find out how to improve the properties through breeding and cultural methods, in cooperation with other branches of the Department, how to retain them in the cotton through proper ginning, and how to utilize them most effectively in manufacture.

Practical work on the measurement of cotton quality is being conducted to establish the factual basis and technique by which (1) cotton may be graduated in accordance with usefulness; (2) processes of distribution may be facilitated insofar as the identification, selection, and assembling of like qualities of cotton and the description of these qualities are concerned; (3) manufacturers may be able to identify, select, and specify the qualities of cotton needed for specific uses; (4) knowledge, concepts, and methods may be developed with a view to their application to breeding and production of American cotton in accordance with maximum utility for specific and major uses; and (5) ginning technique may be developed with a view to conserving the actual and potential utility in the American crop.

The work is carried on through laboratory studies on the various factors of quality. These studies are highly technical and must be carried on under controlled atmosphere and other conditions and through the use of much specialized equipment. Much of the equipment is provided by State colleges, manufacturers, and others. Close cooperation is maintained with cooperating agencies and with other bureaus of the Department.

7. Grain Standardization and Marketing Research.--This project covers the work of the milling and baking and the grain-testing laboratory and other activities connected with the formulation and revision of grain standards and in meeting special problems and establishing policies with respect to the interpretation and application of the standards under the Grain Standards Act. It involves cooperation with the Bureau of Plant Industry in ascertaining the milling and baking properties of the many hundreds of wheat varieties grown by that Bureau throughout the country, thus enabling the crop-production units of the Department to select desirable varieties of grain which have been tested in comparison with commercial lots in connection with formulation and revision of grain standards. Methods and practices involved in the harvesting, handling, storing, cleaning, artificial drying, and bulk-handling of grain are studied, with a view to develop methods for improving the quality and market value of the grain and to avoid losses from deterioration of the grain while it is in storage or during transportation.

In order to be most useful the grain standards must be readily applied under practical conditions and must meet the needs of producers and the grain trade. For this reason research work must be continued in meeting new grading problems. Extensive revisions of the standards were made effective on July 1, 1935. The necessity for speed in grading samples has led to the development of a number of mechanical devices. Work is being continued for the purpose of improving grain-grading equipment such as probes, sample dividers, moisture testers, and devices for separating foreign material from grain.

8. Analyses and Statistical Research on Agricultural Conditions and Trends.--The object of this work is to bring together as complete statistical information as possible with regard to each of the major agricultural commodities and to point out the significance of these data in terms of future trends in production, demand, prices, etc. Indices have been developed and kept current on prices, market movements, and stocks of important farm products, as well as data showing business activity and general price levels. Monthly estimates of the sale of farm products by months have been inaugurated, and a series of publications has been developed which show the world situation with regard to cotton, wheat, livestock, wool, dairy products, and other important commodities. Information is gathered on prices received and prices paid by farmers and on agricultural income, and the effects of various factors on agricultural income are appraised.

The conditions in industry, consumers' incomes, and foreign competition as they affect the demand for American farm products are being studied. Analyses are made to determine the extent to which these conditions influence prices and shape their trends throughout marketing seasons and from one producing period to another. The results of the analyses are released in regular weekly, monthly, and annual reports and in special statements and graphic summaries.

The Bureau is taking a very active part in providing the factual basis for tariff adjustments and trade bargaining with foreign countries. This Bureau is, no doubt, in a strategic position to analyze the effect of various tariffs and concessions on American agriculture, as well as to indicate concessions which can be made to foreign countries without unduly injuring any of our agricultural interests. The staff is making definite contributions to tariff adjustments in cooperation with the State Department and other agencies of the Government.

9. General Marketing Studies.-- The Division of Marketing Research was organized early in 1935 to undertake a program of research in the general field of marketing agricultural products, dealing chiefly with regional and national problems. Most of these problems are concerned with the marketing of several products and involve questions of national policy. Examples of such problems are the development of sound marketing agreements, the coordination of Federal, State, and municipal regulations concerning the marketing of farm products, and the development of efficient and adequate facilities for handling farm products in regional and terminal markets.

The objects of this research are (1) to discover accurate facts about the marketing methods now in use, the history of their development, the relative costs and efficiencies of different methods, and the economic effects of various regulations or attempts to change marketing methods; (2) to appraise the probable economic effects of possible changes in marketing methods, market organizations, or marketing facilities; and (3) to help to bring about a better understanding of the most important marketing problems and to provide a basis for national and regional marketing policies, with a view to lowering marketing costs, performing more adequate services, and increasing the consumption of agricultural products.

This Bureau cooperates with the Agricultural Adjustment Administration in formulating marketing agreements for the handling of various farm products,

and at the request of that organization makes critical studies of the operation of such agreements to determine their advantages and disadvantages. Studies are being made also of terminal and regional marketing facilities. The marketing of perishable foods in the larger cities of the country is very expensive and requires a substantial portion of the consumer's dollar. While many improvements in marketing might be made at country points, it is believed that the terminal and regional markets offer the greatest opportunity for increased efficiency. The increased use of the motor truck in the distribution of perishables, direct shipment from producing areas to smaller consuming centers, the development of regional truck markets, direct buying by chain stores, and other recent developments have not been met by changes in most city markets to make them adaptable to the new situation. In many cities traffic conditions in markets are very bad and result in expensive delays and in spoilage. Because of this situation, the Bureau has received many requests from farmers, the trade, and research agencies for help in bringing about improvements in the market situation. The Bureau is working on this problem in Philadelphia and is making surveys of the situation in a number of other cities. The effects of large-scale processing and distribution upon the marketing of farm products and other problems are also being studied.

10. Outlook Reports on the Agricultural Situation.--The publication of annual outlook reports was inaugurated in the spring of 1923, and these reports have been continued and enlarged from year to year. The principal report is now prepared in the fall and supplemental reports are released throughout the year. The object of these reports is to provide a comprehensive summary of the factors likely to affect the returns secured from each important farm product so that an increasing number of farmers may adjust their cropping, breeding, and fattening programs to the prices and marketing conditions that may reasonably be expected at marketing time rather than on the basis of prices secured in past seasons.

Because of changing conditions much additional research work has been required to permit definite "Outlook statements" covering current and prospective supplies, prices, and returns. The reports have covered an increasing number of crops and an increasing number of kinds of livestock and livestock products. They also cover in more detail the prospect for various types of crops such as tobacco and wheat and the prospects for livestock and other commodities produced for market at various seasons of the year.

11. Interpretation and Dissemination of Information on Marketing Research.--The statistical and economic editorial informational and distribution work of the Bureau is done for all forms of release--publication, mimeographed reports, press releases, radio broadcasts, exhibits, motion pictures, and materials for extension workers. All Bureau publications are appraised, verified, edited, and prepared in form for release. Manuscripts and reports on statistical and economic subjects are prepared to meet various forms of inquiry.

The Department publications "Crops and Markets" and "The Agricultural Situation" are edited, and supervision is maintained over all Bureau mailing lists and periodicals. Charts covering economic information are prepared and sold to extension workers and others, and exhibits are prepared for fairs and expositions in cooperation with the Extension Service of the Department. Supervision is maintained over the photographic laboratory and job printing and mimeographing orders are handled. Many special releases covering various phases

of the Bureau's work, as well as information on statistical and economic subjects in reply to inquiry, are prepared.

(d) CROP AND LIVESTOCK ESTIMATES

Appropriation Act, 1937 .....$686,298
Budget Estimate, 1938 686,298

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Crop and livestock reports	$595,271	$621,081	$621,081
2. Production and marketing statistics, compilation of	64,777	65,208	65,208
Unobligated balance	1,241	--	--
Total appropriation	661,289	686,289	686,289

WORK UNDER THIS APPROPRIATION

General.-- The purpose of the work under this appropriation is to furnish comprehensive and reliable statistical data with regard to agricultural production. The principal function is to collect, compile, analyze, record, and publish basic data of a statistical nature, obtained largely from primary sources, covering all phases of present and prospective crop and livestock production, stocks, prices received, prices paid by farmers, and related subjects.

1. Crop and Livestock Reports.-- The principal base for crop statistics is the information gathered by the Bureau of the Census. The work of the crop-reporting service is primarily that of estimating comparable data for the years intervening between the census-year periods and in supplying pertinent supplemental information.

The information for the crop and livestock reports is obtained from questionnaires filled out by more than 300,000 voluntary reporters. A very large part of this information is compiled in the branch offices located throughout the United States. In addition, large numbers of reports are received direct by the Washington office. For example, 16,000 township reporters, 16,000 dairy reporters, and 8,000 truck and canning-crop reporters send reports direct to Washington. Reports are also received from public stockyards, mills, etc., and much information is obtained from other services and departments. The data from the various sources are assembled in the Washington office and monthly reports are prepared by a competent staff of statisticians, including several members of the field force. The most advanced statistical methods are employed to insure the accuracy of the report and complete secrecy surrounds the information up to the moment it is released to the public.

The work includes the estimating of acreage, yield per acre, quantity of production, farm utilization, and sales of 36 staple and special crops, 25

commercial truck and canning crops, and 25 fruit and nut crops; inventories of livestock; estimates of livestock and poultry production; and production estimates for milk, wool, and eggs; also monthly and annual estimates of farm prices to serve as a basis for evaluating the production of crops, livestock, and livestock products and for measuring the rise and fall of prices of farm products as a group. The work includes the collection and publication of timely information concerning the progress of growing crops, forecasts of production, estimates of stocks of commodities in the hands of farmers and first receivers, etc; intentions-to-plant reports, forecasts of livestock numbers, and many other special reports. In securing the information on which the various estimates and forecasts were based the Division distributed 8,500,000 questionnaires during the past year.

Most of the tabulation and original preparation of estimates is done in the 40 offices maintained in the various States. In all, 24 State departments or boards of agriculture and 8 State colleges of agriculture are cooperating in the maintenance of these offices. The branch offices are located at Albany, N.Y., Athens, Ga., Austin, Tex., Boise, Idaho, Boston, Mass., Brookings, S. Dak., Charleston, W. Va., Cheyenne, Wyo., College Park, Md., Columbia, Mo., Columbia, S. C., Columbus, Ohio, Denver, Colo., Des Moines, Iowa, Fargo, N. Dak., Gulfport, Miss., Harrisburg, Pa., Helena, Mont., Knoxville, Tenn., Lansing, Mich., Las Cruces, N. Mex., Lincoln, Nebr., Little Rock, Ark., Louisville, Ky., Madison, Wis., Montgomery, Ala., New Orleans, La., Oklahoma City, Okla., Orlando, Fla., Phoenix, Ariz., Portland, Oreg., Raleigh, N. C., Richmond, Va., Sacramento, Calif., Salt Lake City, Utah, Springfield, Ill., St. Paul, Minn., Topeka, Kans., Trenton, N. J., and West Lafayette, Ind.

2. Compilation of Production and Marketing Statistics.--This project covers a service section which compiles statistics for publication and for the use of the analysts. Statistics are compiled covering all the major crops. A series of statistical bulletins is being prepared and published which carry comprehensive information on production, consumption, supplies, market receipts, exports, imports, prices, etc., for the various farm products. Similar information is prepared for the Department Yearbook and other publications.

(e) FOREIGN COMPETITION AND DEMAND

Appropriation Act, 1937	$298,000
Budget Estimate, 1938	298,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Foreign competition and demand	$295,512	$298,000	$298,000
Unobligated balance	2,488	- - -	- - -
Total appropriation	298,000	298,000	298,000

WORK UNDER THIS APPROPRIATION

The Act of June 5, 1930 provides for the acquiring of information regarding world competition and demand for agricultural products, the production, marketing, and distribution of such products in foreign countries, and the dissemination of this information throughout the United States for the benefit of the farmers and others. It provides also for investigations abroad of the economic phases of the agricultural industry, for the demonstration of standards for agricultural products in foreign countries, and other matters. This project renders very valuable assistance to American farmers and shippers by acquainting them with foreign market needs and preferences. Information on the foreign market situation is released regularly to the public.

This Bureau keeps in constant touch with the changing agricultural situation in the principal foreign countries, both through its own representatives and through cooperation with other Government agencies, the International Institute of Agriculture, and departments of foreign governments.

During the fiscal year 1936, trade agreements were concluded between the United States and nine countries, namely, Colombia, Canada, Honduras, The Netherlands, Switzerland, Nicaragua, Guatemala, France, and Finland. The trade agreements completed prior to the past fiscal year were those with Cuba, Brazil, Belgium, Haiti, and Sweden, making fourteen agreements concluded, of which all except those with Finland and Nicaragua are in effect. The Bureau's contribution to this program consists primarily in furnishing technical experts to serve on the various interdepartmental country and commodity subcommittees and, in this connection, to suggest terms that would be beneficial to particular agricultural industries on an export basis and provide basic information in regard to the agricultural industries likely to be affected by duty modifications by the United States on agricultural products.

Many studies are made in the field of general commercial policy. For example, a report on "The Position of Silk in the United States-Japanese Trade", published in Foreign Crops and Markets, was prepared in accordance with a specific request of the Executive Committee on Commercial Policy. A study was also made at the request of the Department of State on the subject "The Probable Economic Effect of the Ratification of the Argentine Sanitary Convention upon the Importation into the United States of Argentine Beef and Mutton".

The outstanding research studies conducted in the Foreign Agricultural Service Division during the past fiscal year were in the field of agricultural policy in foreign countries. This field covers the broad ground of governmental aid to agriculture through import restrictions, export aids, and production control or encouragement. The developments in this field are of significance to American agriculture from two points of view --(1) the effect of such foreign governmental activity on the import requirements of foreign countries for American products or on the competition of foreign agricultural products in other foreign or in domestic markets and (2) in providing concrete illustrations of the actual operation and the effect of various farm-aid policies which may be usefully considered in developing the agricultural policies of the United States.

Field offices are maintained in London, Paris, Berlin, Belgrade, Buenos Aires, and Shanghai, and several commodity specialists are making special investigations in European and Asiatic countries.

(f) MARKET INSPECTION OF FARM PRODUCTS

Appropriation Act, 1937	$378,533
Budget Estimate, 1938	426,500
Increase	47,967

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Inspection and certification of fruits and vegetables.....	$261,293	$263,828	$273,795	+$9,967 (1)
2. Grading and certification of canned fruits and vegetables.....	17,506	17,400	25,400	+ 8,000 (2)
3. Grading and certification of dairy and poultry products	32,605	33,190	43,190	+10,000 (3)
4. Inspection and certification of hay, beans, soybeans, etc.	27,726	28,350	28,350	--
5. Grading and certification of meats	29,783	31,150	31,150	--
6. Inspection and certification of rice	4,653	4,615	4,615	--
7. Grading and certification of cottonseed	--	--	20,000	+20,000 (4)
8. Inspection and certification of tobacco	50,945	--	--	--
Unobligated balance	6,692	--	--	--
Total appropriation	431,203	378,533	426,500	+47,967

INCREASES

The increase of $47,967 in this item for 1938 consists of:

(1) An increase of $9,967 to strengthen the inspection and certification service on fruits and vegetables. The expansion of the fruit and vegetable inspection service during the past ten years has been so great that the present supervisory force is inadequate to give this work the careful attention which is necessary in view of the dependence which the industry places upon the certificates issued by the Department showing condition and quality, as well as the dependence of the Department itself on these certificates in its administration of the Produce Agency and Perishable Agricultural Commodities Acts. The allotment for this service ten years ago was practically the same as for the current year although the volume of business has increased during that period from 163,618 cars to 395,250 cars inspected. In addition to the fact that the number of cars inspected has more than doubled, a very large volume of work has developed in connection with inspections for cannery purposes and for many large buying agencies. The expansion of the inspection service for cannery products has grown so rapidly that it has not been possible to maintain adequate supervision. This work has proven so valuable both to the grower and the canner that it is highly important that it should be conducted in a satisfactory manner.

Additional work has developed also in connection with inspections under marketing agreements for which it has been impossible to provide proper supervision. The Export Apple and Pear Act requires a great deal of attention on the part of the supervisors in all exporting territories. This involves such problems as inspecting truck loads moving direct to ports or for assembling at some point for shipment to ports; reinspection for condition in storage and at intermediate inspection points; certification of cannery apples consigned to Canada; the British Special certification; the regulations governing sanitary certification to the Bureau of Entomology and Plant Quarantine; and the spray-residue requirements of the Food and Drug Administration.

With the increase recommended, it will be possible to employ two additional supervisors and to pay for the clerical help and miscellaneous expenses necessary to put this service on a more satisfactory basis.

(2) An increase of $8,000 to extend the grading and certification service on canned fruits and vegetables to additional markets. If this increase is granted, inspectors will be placed at San Francisco and New York City which are important centers for the canned-food industry. It has been necessary in the past year to deny the service to many canners and dealers in canned foods who have desired to market their products on the basis of established grades through the aid of the official certification. There is a rapidly growing demand for this service, which the Bureau expects to be practically self-supporting when more fully established.

(3) An increase of $10,000 for better supervision of the grading and certification service on dairy and poultry products. This grading service has progressed to the point where additional supervisory personnel is badly needed in order to keep the service on a satisfactory basis. The increase will be used largely for the Pacific Coast region and the Chicago district.

(4) An increase of $20,000 for the inauguration of a grading and certification service on cottonseed. There is a general desire among producers, ginners, cottonseed merchants, and oil-milling operators for an inspection service on cottonseed. It will be necessary to provide supervision of the graders of this product. The Bureau has carried on studies of cottonseed grading and has developed and promulgated a standardized method of cottonseed grading. Additional funds will be needed, however, to put the grading service into effect. In connection with this work, fees would be collected, as in the case of other inspection and grading services of the Bureau, which would be covered into the Federal treasury as miscellaneous receipts.

WORK UNDER THIS APPROPRIATION

General.-- This service is permissive in character, the Federal inspector performing the service only at the request of a financially interested party. Certificates are issued which constitute prima facie evidence in the courts of the United States as to the quality and condition of the shipments inspected. These certificates serve as a basis for trading as well as for the settlement of disputes. A very large part of the work is on a cooperative basis, the Federal bureau furnishing supervision only. The work under the entire appropriation has

been about 75 percent self-supporting, since it is conducted on a fee basis. For example, fees amounting to $322,769 were returned to the Treasury during the fiscal year 1936.

1. Inspection and Certification of Fruits and Vegetables.--The work under this project covers the inspection and certification of fresh fruits and vegetables at 48 important receiving markets. A similar inspection service is conducted at shipping points in more than 40 States in cooperation with State agencies. In addition, large quantities of products are inspected for the purchasing departments of the Navy and Marine Corps and for other Federal agencies.

Shippers use the service extensively in making f.o.b. sales to distant buyers who demand standardized products. During the past year 339,420 cars were inspected at shipping points and 55,830 cars at receiving points. Since the passage of the Perishable Agricultural Commodities Act the inspection certificates have increased in value on account of being received as prima facie evidence in hearings resulting from complaints filed under that Act. A very large amount of business is done with the railroads, which use the Federal certificates as the basis for the settlement of claims.

The inspection service plays an important part in marketing American fruits in foreign markets. The Export Apple and Pear Act of June 10, 1933 requires that, with certain minor exceptions, all shipments of apples and pears in export must be accompanied by a certificate showing that the shipment meets the minimum quality requirements established by the Secretary of Agriculture for the exportation of these commodities. The inspection service conducted under this item serves to enforce the Act. The French quarantine, which prohibits the entry into France of apples which are infested with San Jose scale, makes it necessary for shipping point inspectors to examine two percent of the fruit in each lot concerned before it can receive the French sanitary certificate issued by the Bureau of Entomology and Plant Quarantine.

Branch offices are maintained at Albany, N.Y., Atlanta, Ga., Baltimore, Md., Baton Rouge, La., Boise, Idaho, Boston, Mass., Buffalo, N.Y., Chicago, Ill., Cincinnati, Ohio, Cleveland, Ohio, Columbia, S.C., Columbus, Ohio, Denver, Colo., Detroit, Mich., Fargo, N.Dak., Fort Worth, Tex., Great Lakes, Ill., Harlingen, Tex., Harrisburg, Pa., Hartford, Conn., Houston, Tex., Indianapolis, Ind., Jacksonville, Fla., Kansas City, Mo., Los Angeles, Calif., Memphis, Tenn., Milwaukee, Wis., Minneapolis, Minn., Newark, N.J., New Haven, Conn., New Orleans, La., New York, N.Y., Norfolk, Va., Oklahoma City, Okla., Omaha, Nebr., Orlando, Fla., Philadelphia, Pa., Pittsburgh, Pa., Portland, Oreg., Providence, R.I., Rochester, N.Y., Sacramento, Calif., St. Louis, Mo., Salt Lake City, Utah, San Pedro, Calif., San Diego, Calif., San Francisco, Calif., Seattle, Wash., Vallejo, Calif., Washington, D.C., and Yakima, Wash. In addition, inspections are made at shipping points in cooperation with more than 40 States.

2. Grading and Certification of Canned Fruits and Vegetables.--This service is of special value to canners who have need of an official determination of quality. It is also used largely by the purchasing agencies of the Government, especially the Veterans' Administration, and by an increasing number of State and municipal authorities and by commercial dealers. The work consists of the grading of samples from all lots of canned fruits and vegetables stored by public warehousemen licensed under the United States Warehouse Act as a part of the supervision of warehouses licensed under that Act.

3. Grading and Certification of Dairy and Poultry Products.--This service consists of the grading of dairy and poultry products in terminal markets and at shipping points for class, grade, quality, and condition; supervision of the inspection of dressed poultry for condition and wholesomeness at canning establishments; and the inspection of live poultry for crop and health condition (cooperative work in New York City).

Branch offices are maintained at Boston, Mass., Chicago, Ill., Los Angeles, Calif., Minneapolis, Minn., New York, N.Y., Philadelphia, Pa., Portland, Oreg., San Francisco, Calif., Seattle, Wash., and Washington, D.C.

4. Inspection and Certification of Hay, Beans, Soybeans, etc.-- This project consists of the maintenance of an inspection and grading service and the supervision of licensed inspectors under cooperative agreements with State and other agencies. The service includes the verification of dealers' records on seed in order that certificates may be issued showing the State of origin. The service makes it possible for farmers to obtain seed which is adapted to their section of the country.

Branch offices are maintained at Atlanta, Ga., Chicago, Ill., Denver, Colo., Great Falls, Mont., Kansas City, Mo., Los Angeles, Calif., Minneapolis, Minn., Portland, Oreg., Salt Lake City, Utah, San Francisco, Calif., and Seattle and Spokane, Wash.

5. Grading and Certification of Meats.-- The meat-grading service is available to commercial interests and to purchasing officers for Federal, State, and city institutions at points where graders are maintained. In addition, a specialized type of service is rendered at slaughtering and distributing establishments by which beef and lamb carcasses are graded and stamped with a roller stamp in such a manner that the grade appears on the retail cuts for the information of consumer buyers.

Through this service National standards for various classes of meats are being developed. The use of these standards as a basis for buying and selling is increasing. Contracts by Federal, State, and municipal institutions are being awarded on the basis of Federal grades. The service prevents the possibility of substitution and insures a reasonably high degree of uniformity on most purchases. The grade stamp on the meat is therefore of value to consumers because it insures delivery of meats of a definite quality. There is a rapidly-growing demand on the part of consumers for Federally-graded meats.

Branch offices are maintained at Baltimore, Md., Buffalo, N.Y., Boston, Mass., Chicago, Ill., Cleveland and Columbus, Ohio, Detroit, Mich., Kansas City, Mo., Los Angeles, Calif., National Stockyards, Ill., New York, N.Y., Oklahoma City, Okla., Omaha, Nebr., Philadelphia, Pa., Phoenix, Ariz., San Francisco, Calif., Seattle, Wash., Sioux City, Iowa, South St. Paul, Minn., Washington, D.C., Wichita, Kans., and Wheeling, W.Va.

6. Inspection and Certification of Rice.-- This work is conducted under joint agreements between this Bureau and State departments of agriculture in California, Texas, and Louisiana and commercial interests in Arkansas and covers rough, brown, and milled rice. Under these agreements the initial inspections are made by State officials under the supervision of the Bureau. Appeals from

initial inspections are handled by the Bureau direct. The grade certificates covering inspections of rough rice that are issued to the producers at the time they offer their rice for sale on the market give a definite indication of the milling value of the rice, and this makes it possible for the producers to demand and receive the full market price for their rice based on its utility and market value. The grade certificates covering milled rice are of special importance in connection with export transactions in that the certificates facilitate the exportation of the surplus rice.

7. Grading and Certification of Cottonseed.--This is proposed as a new project for 1938. (See justification for increase under this item.)

8. Inspection and Certification of Tobacco.-- This project was dropped in 1937. (See new item "Tobacco Inspection Act".)

(g) TOBACCO INSPECTION ACT

Appropriation Act, 1937	$250,000
Budget Estimate, 1938	250,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Tobacco Inspection Act	--	$250,000	$250,000

WORK UNDER THIS APPROPRIATION

The Tobacco Inspection Act was approved August 23, 1935 (U.S.C. Supp. I, title 7, secs. 511-511q). Funds for the administration of the Act were not provided, however, until near the close of the fiscal year when authority was granted by Congress to expend not to exceed $12,000 for the holding of referenda in preparation for the 1936-1937 marketing season. The full appropriation of $250,000 became available on July 1, 1936, and the first year's operation is now well under way.

The first main objective of the Act is to furnish tobacco growers with dependable information as to the quality of their tobacco according to uniform standards. The second principal objective is to supply growers with market reports showing prices paid for the different grades. The Act authorizes the Secretary of Agriculture to establish standards for tobacco by which its type, grade, size, condition, or other characteristics may be determined, and the standards so established are the official standards of the United States for such purpose.

The Act further authorizes the Secretary of Agriculture to designate auction markets upon which the tobacco bought and sold moves in interstate and foreign commerce. After public notice of not less than 30 days, no tobacco shall be offered for sale at auction at a designated market until it shall have been inspected and certified according to the Government standards by an authorized representative of this Department. This feature of the inspection service will be

applicable only to the tobacco offered for sale at auction and is intended to provide growers with an official determination of the grade of their tobacco before it is sold by them. The designation of an auction market for inspection purposes must be preceded by a referendum and favored by two-thirds of the growers voting in such referendum. The Act provides that the cost of the inspection at designated markets and the market news service shall be borne by the Government.

Section 9 of the Act provides for a market news service primarily for the benefit of growers, in order that they may be daily informed of the price at which the various qualities of tobacco are being sold. Reliable market reports, based upon actual sales, have been found to be a valuable adjunct to an official inspection service. With the grade of this tobacco, as determined by a financially disinterested representative of this Department, and an official market report showing the prices being paid for the different grades, the grower is in position to decide whether to accept or reject the price offered for his tobacco.

Section 10 of the Act provides needed safeguards around the use of the official standards and the inspection service and provides penalties for various abuses.

(h) MARKET NEWS SERVICE

Appropriation Act, 1937	$1,062,057
Budget Estimate, 1938	1,077,000
Increase	14,943

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Market news service on livestock meats, and wool	$417,844	$421,389	$421,389	--
2. Market news service on fruits and vegetables	415,945	427,673	427,673	--
3. Market news service on dairy and poultry products	134,778	139,138	139,138	--
4. Market news service on grain, hay, feed, and seed	73,557	73,857	73,857	--
5. Market news service on cottonseed	--	--	14,943	+ $14,943 (1)
6. Market news service on tobacco .	22,027	--	--	--
Unobligated balance	12,341	--	--	--
Total appropriation.....	1,076,492	1,062,057	1,077,000	+ 14,943 (1)

INCREASE

(1) An increase of $14,943 for the inauguration of a limited market news service on cottonseed. The object of this service will be to furnish growers

and others current information on the supply, demand, movement, and prices for various grades of cottonseed. This news reporting service will be coordinated with the grading service proposed to be started under the appropriation "Market Inspection of Farm Products".

Cottonseed is one of the eight or nine commodities providing the largest farm income in the United States. In a number of the principal cotton-growing States it is second in value only to cotton lint. A recent study indicates that the prices paid for cottonseed by individual cottonseed crushing mills frequently varied widely on the same day in the same general area. Price changes at certain mills frequently had very little effect on price changes at a nearby mill; in fact, it was frequently several days before a price change at one mill was followed by a price change at a competing mill. The average margins taken by gins for handling cottonseed varied rather widely at the same time in different localities and at different times in the same locality. Growers should have sufficient information as to the prices being paid for cottonseed and as to the grades of cottonseed in their respective communities to be able to determine whether or not the prices offered them are reasonable.

WORK UNDER THIS APPROPRIATION

General.-- The market news service is built largely upon information gathered by the Bureau's representatives in large central markets. Offices in the large terminal markets must be maintained in order to gather the information to be distributed to the shipping districts. These markets are connected with leased telegraph wires. The Bureau obtains under contract the exclusive use of certain telegraph wires throughout the day and employs its own telegraphers who transmit the market information over the wires in code and decode the incoming messages. The market reporters are in the market as soon as trading begins each day and report receipts and prices. The information goes over the leased wire to Washington and to other branch offices, where it is combined with other reports and released to the public. In addition, telegraph and mail reports are furnished the Bureau by common carriers and other reporters, and information with regard to supply and demand conditions in foreign countries is made available through the foreign service of the Bureau. This market information is given publicity throughout the country, especially in important producing districts, by telegraph, telephone, radio, mail, bulletin boards, newspapers, and other means.

1. Market News Service on Livestock, Meats, and Wool.--Branch offices are now maintained in 28 cities. Market conditions and prices are reported covering 28 public livestock markets, direct marketing of hogs in Iowa and southern Minnesota, direct and contract sales of sheep and lambs in the western range and pacific coast States, 5 of the largest wholesale meat-marketing centers, and the Boston wool market. The information is distributed by the Bureau's leased-wire telegraph system, by radio, press associations, commercial telegraph companies, news trade and agricultural publications, boards of trade, telephone, bulletin boards and by mail. In addition, information is furnished to several State departments for dissemination by radio and otherwise. All market reports are based upon the Bureau's standardized class and grade system.

Branch offices are maintained at Baltimore, Md., Boston, Mass., Buffalo, N. Y.*, Casper, Wyo.*, Chicago, Ill., Cincinnati, Ohio, Denver, Colo., Des Moines,

Ia., Fort Worth, Tex., Indianapolis, Ind., Kansas City, Mo., Los Angeles, Calif.*, Louisville, Ky.*, Nashville, Tenn., National Stockyards, Ill., New York, N. Y., Ogden, Utah, Oklahoma City, Okla., Omaha, Nebr., Philadelphia, Pa., Pittsburgh, Pa., Portland, Oreg., St. Joseph, Mo., San Antonio, Tex., So. St. Paul, Minn., San Francisco, Calif., Sioux City, Ia., and Wichita, Kans. (* Not connected with leased telegraph system.)

2. Market News Service on Fruits and Vegetables.--City market stations are maintained in 21 markets and, in addition, 39 field offices are in operation for varying periods. This project gathers daily information relative to receipts, unloads, market prices, and demand for fruits and vegetables in the principal markets and shipping sections of the country; also reports from the common carriers on carlot shipments, diversions, and passings. There are 84,173 names on the mailing lists for the reports. The information helps to bring about more orderly marketing of these products, eliminates waste and loss by keeping shippers informed of market demands, and helps to bring more equitable returns to growers. Reports are prepared summarizing the marketing of individual crops in producing sections from which daily market information has been released. Special reports showing unloads of cars of fruits and vegetables in a large number of markets were issued during the past year, as well as various reviews and summaries relative to the marketing of these commodities. Shipments of 804,910 cars of fruits and vegetables were reported for the past year.

Branch offices are maintained at Atlanta, Ga., Baltimore, Md., Boston, Mass., Chicago, Ill., Cincinnati, Ohio, Cleveland, Ohio*, Denver, Colo., Detroit, Mich.*, Fort Worth, Tex., Kansas City, Mo., Los Angeles, Calif.*, Minneapolis, Minn., New Orleans, La.*, New York, N. Y., Oklahoma City, Okla., Philadelphia, Pa., Portland, Oreg., St. Louis, Mo., San Antonio, Tex., San Francisco, Calif., and Seattle, Wash. In addition, many branch offices are operated for short periods during the heavy movement of important crops and information is furnished to State offices for dissemination. (*Not connected with leased telegraph system.)

3. Market News Service on Dairy and Poultry Products.-- This project gathers and disseminates current market information with reference to production, manufactures, shipment, receipts, movement, prices, etc., on various classes of dairy and poultry products. Offices are maintained in 8 large terminal markets for the purpose of gathering information on market conditions. Special attention is being given to the study of wholesale price quotations, and surveys are being made of the extent to which premiums are being paid by wholesale receivers in their purchases from country creameries. For the information of producers and others a mimeographed article covering the problems involved in reporting wholesale butter prices has been distributed. The article and other releases of the Bureau have been reproduced in important trade journals.

Branch offices are maintained at Boston, Mass., Chicago, Ill., Los Angeles, Calif.*, New York, N.Y., Philadelphia, Pa., Portland, Oreg., San Francisco, Calif., and Seattle, Wash. (*Not connected with leased telegraph system.)

4. Market News Service on Grain, Hay, Feed, and Seed.-- This project furnishes to growers, country dealers, and others information relative to market developments, supply and demand conditions, and other factors influencing prices or the market situation for grain, hay, feed, seed, rice, beans, hops, and other products. The information collected from all available sources is analyzed and

incorporated in market reviews which are issued at regular intervals and distributed to growers and other agricultural interests from Washington, D. C., and 7 branch offices. These reviews are published widely in newspapers and trade journals.

Branch offices are maintained at Atlanta, Ga., Chicago, Ill., Kansas City, Mo., Los Angeles, Calif.*, Minneapolis, Minn., Portland, Oreg., and San Francisco, Calif. (*Not connected with leased telegraph system.)

5. Market News Service on Cottonseed.-- This is proposed as a new project for 1938. (See justification for increase under this appropriation.)

6. Market News Service on Tobacco.--This project was dropped in 1937, the work being superseded by the activities under the Tobacco Inspection Act.

(i) PERISHABLE AGRICULTURAL COMMODITIES ACT

Appropriation Act, 1937	$137,666
Budget Estimate, 1938	143,890
Increase	6,224

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
Perishable Agricultural Commodities Act	$126,516	$137,666	$143,890	+$6,224 (1)
Unobligated balance	1,150	--	--	--
Total appropriation	(a) 127,666	137,666	143,890	+ 6,224 (1)

(a) Excludes $3,800 allotted to "Salaries and Expenses", Office of the Solicitor (salary of one attorney).

INCREASE

(1) An increase of $6,224 to facilitate handling of the work under this Act. This increase will provide for one additional investigator for New York City and vicinity to advise with the trade on problems involved in the filing of claims and the settlement of disputes. It is desired to have a man on the ground who can accomplish the settlement of many cases without formal procedure and thus avoid the filing of complaints which require a considerable time and expense on the part of the investigators from the washington office. The increase will also provide for some additional clerical help and traveling expenses. It will make it possible to give more attention to checking up unlicensed commission merchants, dealers, and brokers, particularly truckers, in order to secure compliance with the law. The receipts under this Act have been in excess of expenditures each year since the inauguration of the work.

WORK UNDER THIS APPROPRIATION

The work under this project consists of the administration of the provisions of the Act of June 10, 1930, as amended by the Act of June 19, 1936 (U.S.C., title 7, secs. 499a-499r), to suppress unfair and fraudulent practices in the marketing of fresh fruits and fresh vegetables in interstate and foreign commerce. This Act requires the licensing of all commission merchants, dealers, and brokers, with a few exceptions, and gives the Secretary authority to award reparations and to suspend or revoke the licenses of those who are found to have engaged in certain specified unfair and fraudulent practices in the marketing of these commodities. License fees of $10 per annum are charged, and the receipts have exceeded the expenditures each year.

During the past year 2,182 complaints were received. In 705 of these amicable settlements were arranged; 111 formal hearings were held; and 320 orders were issued by the Secretary. There was a decrease of 473 in the number of complaints received, as compared with the preceding year, a decrease which probably is explained to a great extent by the somewhat higher level of prices which prevailed, especially during the last six months of the year. It is interesting to note that with the passage of time the proportion of trivial complaints has dropped and that those now received tend to be of a more involved and intricate nature. Since April 13, 1934, amicable settlements have resulted in known payments of $386,266.86 to complainants.

(j) STANDARD CONTAINER, HAMPER, AND PRODUCE AGENCY ACTS

Appropriation Act, 1937	$30,238
Budget Estimate, 1938	30,238

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Standard Container and Hamper Acts	$21,216	$21,138	$21,138
2. Produce Agency Act	8,750	9,100	9,100
Unobligated balance	272	--	--
Total appropriation	30,238	30,238	30,238

WORK UNDER THIS APPROPRIATION

General.-- Three Acts are administered under this appropriation, i.e., the Standard Container Act of 1916, the Standard Container Act of 1928 (Hamper Act), and the Produce Agency Act (U.S.C., title 15, secs. 251-257i; title 7, secs. 491-497).

1. Enforcement of the Standard Container and Hamper Acts.-- The work under this project consists of the administration of the provisions of the two standard container Acts. These Acts fix the sizes for Climax baskets, containers

for small fruits and vegetables, standard hampers, and round stave and splint baskets. The enforcement of these Acts involves the testing of samples of these containers in order to determine whether they comply with prescribed standards, the collection of evidence, and the preparation, for submission to the Department of Justice, of cases against those who fail to comply with the provisions of these laws.

2. Enforcement of the Produce Agency Act.-- The work under this project consists of the administration of provisions of the Act entitled "An Act to prevent the destruction or dumping, without good and sufficient cause therefor, of farm produce received in interstate commerce by commission merchants and others and to require them truly and correctly to account for all farm produce received by them". This is a criminal statute, providing fine or imprisonment for the fraudulent or dishonest handling of produce by a commission agency.

Under the Produce Agency Act, 75 complaints were filed during the past year. These related almost entirely to failure to make proper return or to fraudulent accounting. Convictions in Federal courts were obtained on 4 cases, and a number of cases were pending at the close of the year. Violations of this Act are also violations of the Perishable Agricultural Commodities Act insofar as they relate to shipments of fresh fruits and vegetables and are handled under the latter Act, except in cases in which criminal prosecution seems appropriate.

(k) PEANUT STOCKS AND STANDARDS

Appropriation Act, 1937	--
Budget Estimate, 1938	$10,000
Increase	10,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
Peanut stocks and standards	--	--	$10,000	+$10,000(1)

(1) The increase of $10,000 represents a new item for the purpose of carrying into effect the provisions of the Act of June 24, 1936 (49 Stat. pp. 1898-1899), providing for the collection and publication of statistics of peanuts. These funds will be used to gather and publish statistical information on peanuts, including the quantities in storage of shelled, cleaned, and farmers' stocks by varieties, as well as stocks of imported peanuts and of peanut meal and peanut oil. It will be necessary to build up lists of warehousemen, cleaners, shellers, and others to whom schedules will be sent for reporting this information. The information will be compiled by the Bureau and released at regular intervals. Reports on the quantities of peanuts picked or threshed will be obtained from operators of peanut pickers or threshers in the twelve peanut-producing States. The field offices of this Bureau will maintain lists of reporters, check and tabulate the reports received, and forward the information to Washington for publication with the Bureau's crop reports and for dissemination by various other means of publicity.

(l) TOBACCO STOCKS AND STANDARDS

Appropriation Act, 1937 ..... $17,187
Budget Estimate, 1938 17,187

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Tobacco stocks and standards	$17,055	$17,187	$17,187
Unobligated balance	132	--	--
Total appropriation	17,187	17,187	17,187

WORK UNDER THIS APPROPRIATION

This work consists of the compilation and publication of quarterly reports covering the quantities of leaf tobacco in the hands of dealers and manufacturers separated as to type and as to certain divisions within the type. These reports are published as of the first day of January, April, July, and October and represent a comparison of statistics of supplies held by dealers and manufacturers, the submission of which is mandatory. The work was provided for by Act of January 14, 1929, as amended by the Act of August 27, 1935 (U.S.C., Supp. I, title 7, secs. 501,502).

Tobacco stocks have an important bearing on prices paid to growers for new stock tobacco, and an accurate and detailed analysis of such stock is essential to the protection of the growers' interests. The reports form the basis of studies relating to the prospective market position of different types of tobacco conducted on behalf of growers by State and Federal agencies. Trade journals give these reports prominence in their publications.

(m) COTTON GRADE AND STAPLE STATISTICS

Appropriation Act, 1937 ..... $224,517
Budget Estimate, 1938 224,517

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Cotton grade and staple statistics ..	$223,018	$224,517	$224,517
Unobligated balance	1,499	--	--
Total appropriation.....	224,517	224,517	224,517

WORK UNDER THIS APPROPRIATION

The work under this appropriation is required by the Act of March 3, 1927 (U.S.C., title 7, secs. 471-476). The project gathers information and prepares, at stated intervals, estimates concerning the grade and staple of cotton ginned from the crop, the number of bales of each grade and staple carried over from one season to another, and the grade and staple of cotton consumed by domestic mills. Four national reports and 4 reports for each of the 16 important cotton-producing States, besides weekly reports, individual gin reports, and a variety of special reports, are regularly issued during the ginning season. The carry-over and consumption reports are issued on a national basis annually.

Prior to the 1932-33 season the grade and staple reports on the crop consisted only of those released at intervals of about a month during the ginning season on cotton ginned to specified dates. Beginning with 1932-33, weekly reports, supplementing the periodic crop reports released at intervals of about a month during the ginning season, were inaugurated for the United States, for individual States, and for districts into which the States are divided for purposes of the grade and staple reports. These weekly reports, which were continued during the 1933-34, 1934-35, and 1935-36 seasons, are prepared to show the quality distribution of samples classed during weekly periods rather than the quality distribution of actual ginnings during such periods.

During the 1935-36 season cooperating ginners again were furnished copies of the daily classification sheets with numbers identifying the bales represented by samples furnished for classification, this being a continuation of the service inaugurated at the beginning of the 1933-34 season. Because of interest in the individual bale classifications, cooperating ginners agreed to furnish samples free during the 1933-34 season in exchange for copies of the daily classification sheets with numbers identifying the bales, notwithstanding the fact that they had previously received five cents per sample.

Branch offices are maintained at Atlanta, Ga., Dallas, El Paso, and Austin, Tex., and Memphis, Tenn.

(n) U. S. COTTON FUTURES AND U. S. COTTON STANDARDS ACTS

Appropriation Act, 1937	$487,111
Budget Estimate, 1938	501,900
Increase	14,789

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Cotton futures and spot market investigations and cotton price quotations	$59,772	$61,920	$61,920	--
2. Preparation and distribution of official cotton standards	120,084	120,186	120,186	--
3. Classing spot cotton, etc., under the Cotton Standards Act	69,193	80,000	80,000	--
4. Supervision of licensed classers	78,081	74,080	88,869	+ $14,789(1)
5. Classification of cotton under the Cotton Futures Act	131,474	150,925	150,925	--
Unobligated balance	28,507	--	--	--
Total appropriation	(a)487,111	487,111	501,900	+ 14,789(1)

(a) Includes $10,000 provided by Second Deficiency Act, 1935 (for establishment of an office in Texas).

INCREASE

(1) An increase of $14,789 to provide better supervision of the work of licensed cotton classers. Developments during recent cotton seasons make it imperative that more adequate provision be made for the supervision of the work of cotton classifiers licensed under the United States Cotton Standards Act. The first allotment for such supervision work ($75,000) was made under the Appropriation Act for the fiscal year 1932. This allotment has remained practically stationary. It has been necessary within this limit to confine the supervision work for the most part to licensed classifiers employed by various cotton cooperative associations to classify cotton as received from their members. Very little supervision of the work of other licensees has been possible, and experience has shown that uniformity and accuracy are not obtainable without this more general supervision. In 1932, the number of classers licensed was 259; in 1936 there were 475. The importance of the supervision problem is further indicated by the fact that licensees during the 1935-36 season have reported the classification of 4,349,121 bales of cotton compared with 2,750,000 for the previous year. While the small increase recommended will not enable the Bureau to give as close supervision as would be desirable in all cases, it will make it possible to deal with the situation more satisfactorily than at present.

WORK UNDER THIS APPROPRIATION

General.-- The Cotton Futures Act provides for the establishment by the Department of Agriculture of standards for the qualities of cotton; determination of the grade and staple of cotton delivered in settlement of futures contracts; supervision of the quotations of commercial differences in spot markets designated under the Act; and dissemination of information as to market prices and conditions. This Act was approved August 11, 1916 and amended March 4, 1919 (U.S.C., title 26, secs. 1090-1106)

The Cotton Standards Act requires the use of the official cotton standards in all interstate and foreign commerce transactions involving American cotton shipped by grade. It gives owners or holders of cotton the privilege of submitting cotton to representatives of the Department for classing and authorizes the Secretary to examine and license cotton classers. In the administration of the legislation agreements have been negotiated with the principal foreign cotton trade associations thus providing for the world-wide use of the cotton standards. This Act was approved March 4, 1923 (U.S.C., title 7, secs. 51-65; title 31, sec. 725d). Receipts under the two Acts for the past year amounted to $99,344.

1. Cotton Futures and Spot Market Investigations and Cotton Price Quotations.--Prices on grades of cotton above and below Middling and on staple longer than 7/8-inch as quoted in ten principal spot markets of the United States designated for the purpose by the Secretary of Agriculture are required, under the U.S. Cotton Futures Act, to be used in the settlement of futures contracts whenever settlement is effected by delivery of cotton. The proper functioning of the cotton-futures market necessitates that the price quotations of the designated spot markets shall reflect values of spot cotton of various grades and staples as indicated by actual sales. Active supervision of quotations in the spot markets, therefore, is essential. Information is disseminated widely among producers concerning the value of cotton of the different qualities.

The Cotton Belt has been divided for the purpose of administering this project into three districts, with headquarters at Atlanta, Ga., Memphis, Tenn., and Dallas, Tex. A Weekly Cotton Review is prepared at Washington based on information assembled at Washington. The review is telegraphed to the field offices, mimeographed, and furnished to a mailing list, as well as to news organs and to broadcasting stations for dissemination. In addition to the review, there is prepared at each of the three field offices a premium staple cotton report which covers the prevailing premiums and discounts for cotton above and below 7/8-inch, including the lengths 3/4-inch up to 1-1/4 inches. There is also prepared in Atlanta a daily report giving the Middling 7/8-inch quotation in the ten designated markets, as well as the grade and staple premiums prevailing in such markets.

2. Preparation and Distribution of Official Cotton Standards.--The official standards are prepared and promulgated under the authority of both the Cotton Futures and the Cotton Standards Acts. Copies of the standards are sold to the public. Inasmuch as the law makes the use of these standards mandatory in interstate and foreign commerce and prohibits the duplicating of the standards or the use of private types in evasion of or substitution for the standards, domestic and world commerce in American cotton is made dependent upon the prompt and proper performance of this work.

The sixth meeting under the International Universal Cotton Standards Agreements convened in Washington on March 9, 1936. These meetings, which are attended by representatives of the nine principal cotton organizations of Europe, are regularly held for the purpose of approving copies of the Universal Grade Standards for use by the Department and by the European organizations.

The copies of the standards approved were based upon the revised Universal Grade Standards which became effective on August 20, 1936. Seventy-five full sets of copies were approved, together with 360 additional separate boxes required for use by the various associations and by the Department.

3. Classing Spot Cotton, etc., under the Cotton Standards Act.--Under the Cotton Standards Act any person who has a financial interest in any cotton may submit a sample to the Department for classification under the Cotton Standards Act. Under this project classers are also examined and licensed to classify cotton.

4. Supervision of Licensed Classers.--The classing of spot cotton in the field is supervised by the Board of Supervising Cotton Examiners, with headquarters at Memphis, Tenn., and local supervisors are stationed at Oklahoma City, Okla., and Dallas, Austin and Abilene, Tex., New Orleans, La., Atlanta, Ga., and, on a seasonal basis, at Columbia, S. C. An important feature of this work is the supervision of licensed cotton classers, who number 475 and are stationed throughout the South. The cooperative cotton-marketing associations rely upon the licensed classers and upon the supervision of their work in establishing the classification upon which settlements with their members are based. In checking the work of the licensed classers the Bureau's supervisors classed 232,477 bales during the past year.

5. Classification of Cotton under the Cotton Futures Act.--An amendment to the Cotton Futures Act, dated March 4, 1919, provides that all cotton intended for delivery on futures contracts shall be classified by officers of the Department of Agriculture. Boards of cotton examiners are maintained in New Orleans, Houston, Galveston, Charleston, Savannah, and Mobile, and; for a part of the time, in New York, for southern deliveries on New York contracts.

(o) U.S. GRAIN STANDARDS ACT

Appropriation Act, 1937	$723,941
Budget Estimate, 1938	723,941

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Supervision of grain inspection.....	$661,275	$675,991	$675,991
2. Checking inspection efficiency of licensed inspectors	16,579	19,050	19,050
3. Board of Review for deciding appeals.....	29,099	28,900	28,900
Unobligated balance	1,988	--	--
Total appropriation.....	708,941	723,941	723,941

WORK UNDER THIS APPROPRIATION

General.--The Grain Standards Act of August 11, 1916 (U.S.C., title 7, secs. 71-87) directs the Secretary of Agriculture to (1) establish official standards for grain; (2) license inspectors to apply the official standards; (3) supervise the work of such licensed inspectors in order that there will be

a correct and uniform application of the standards, and entertain appeals from grades assigned by such inspectors in cases where a party to a grain transaction is dissatisfied with the grade originally assigned by the licensed inspector; and (4) conduct hearings and publish his findings in certain cases of interstate grain movement and transactions.

1. Supervision of Grain Inspection.-- Official standards have been promulgated for corn, wheat, oats, rye, grain sorghums, feed oats, mixed feed oats, barley, mixed grain, and flaxseed. These standards are in general use throughout the United States and in export commerce and must be used when grain is shipped by grade in interstate commerce. They form the basis for transactions in the various steps from the producer to the consumer. These steps include the country elevator, the interior market, the terminal market, and the distribution to consuming industries in this country as well as to seaboard markets for export. The standards are employed in both cash and future transactions. Since the grain industry is highly competitive, it is very necessary that the inspection service should be efficient and dependable. Grain inspectors and grain supervisors stand as impartial and unbiased arbiters between sellers and buyers, and the use of this service has been so well established that it forms a basic feature of the highly organized merchandising practices in both domestic and export commerce.

2. Checking Inspection Efficiency of Licensed Inspectors.--This project covers the work of maintaining correct and uniform application of the standards by licensed inspectors at all markets throughout the United States. Tendencies on the part of inspectors which depart from the uniform application of the standards are noted and are called to the inspector's attention. Inspectors' licenses may be suspended or cancelled on evidence of incompetence or dishonesty. Uniformity of application of the standards to shipments which move from one inspection point to another presents a most difficult task requiring constant attention from supervisory officials in order that all branches of the industry may be on the same competitive basis from the standpoint of grades.

3. Board of Review for Deciding Appeals.--Boards of review are located at Chicago and Portland, Oreg. These boards interpret the standards, develop correct methods of application, and disseminate information through the supervisors to the licensed inspectors throughout the country. Certain factors of the standards are applied by mechanical apparatus, whereas others involve the human element in the exercise of judgment and discretion. These boards are constantly engaged in reviewing samples submitted from all sections of the country and giving its interpretative opinions. New problems from a grading standpoint are constantly arising, and the board is the agency which makes the final decisions. In addition, they function as boards of appeals in the case of inspections performed by licensed inspectors which have been appealed to district supervisors and thereafter carried to board of review.

Receipts amounting to $62,950 were returned to the Federal Treasury under the Grain Standards Act during the past year.

Branch offices are maintained at Albany, N.Y., Baltimore, Md., Boston, Mass., Buffalo, N.Y., Cairo, Ill., Cedar Rapids, Iowa, Chicago, Ill. (field and district headquarters), Cincinnati, Ohio, Denver, Colo., Duluth, Minn., Enid, Okla., Fort Worth and Galveston, Tex., Great Falls, Mont., Hoboken, N.J. (substation), Hutchinson, Kans., Indianapolis, Ind., Kansas City, Mo., Los

Angeles, Calif., Louisville, Ky., Memphis, Tenn., Milwaukee, Wis., Minneapolis, Minn., Nashville, Tenn., New Orleans, La., New York City, N.Y., Ogden, Utah, Oklahoma City, Okla., Omaha, Nebr., Peoria, Ill., Philadelphia, Pa., Portland, Oreg. (field and district headquarters), St. Joseph and St. Louis, Mo., San Francisco, Calif., Seattle, Wash., Sioux City, Iowa, South Chicago, Ill. (substation), Spokane and Tacoma, Wash., Toledo, Ohio, Vancouver, Wash., and Wichita, Kans.

(p) U. S. WAREHOUSE ACT

Appropriation Act, 1937	$321,665
Budget Estimate, 1938	326,700
Increase	5,035

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
Administration U.S. Warehouse Act	$305,669	$321,665	$326,700	+$5,035 (1)
Unobligated balance	10,996	--	--	--
Total appropriation.....	316,665	321,665	326,700	+ 5,035 (1)

INCREASE

(1) The increase of $5,035 in this item for 1938 will provide for a slight expansion in the field personnel. There has been an enormous increase in the licensed warehouse capacity in the past few years although the funds have remained practically stationary. Because of the increase in demand for licenses, it has not been possible to make the usual four inspections per annum in all cases. Since great dependence is put upon the licensed warehouse receipt, it is imperative that enough supervision should be exercised to safeguard the interests of those using the service.

WORK UNDER THIS APPROPRIATION

This work is authorized by the Act of August 11, 1916 (U.S.C., title 7, secs. 241-273). Before a product is added to the list of commodities which may be stored in licensed warehouses investigational work is conducted to determine whether such product can properly be warehoused under the Warehouse Act. Regulations are then prepared covering the conditions under which it may be stored. When an application is received for a license, investigations are made to ascertain whether the warehouse is a suitable structure and has the necessary facilities and whether the warehouseman is of good repute and has the proper financial responsibility, experience, etc. After the license is issued the warehouse is inspected regularly to make certain that the law and regulations are being complied with and that the interests of the patrons are being safeguarded.

The work under the Warehouse Act has been increasing each year. Cooperative associations, distributors, and others are insisting that their products be stored in Federally licensed warehouses, since the receipts from such warehouses provide much needed collateral for loans.

During the past year a regional cooperative organization in the Pacific Northwest developed a plan of operation for licensing elevators and grain warehouses owned by cooperative organizations, numbering more than 100 and having a capacity of 12,000,000 bushels. This Bureau is examining and licensing these units as fast as possible.

Fees amounting to $27,415 from operations under the Warehouse Act were returned to the Federal Treasury during the past year.

Branch offices are maintained at Atlanta, Ga., Indianapolis, Ind., Little Rock, Ark., New Orleans, La., Omaha, Nebr., Portland, Oreg., Raleigh, N.C., and Wichita, Kans.

(q) ESTABLISHING WOOL STANDARDS

Appropriation Act, 1937	$26,652
Budget Estimate, 1938	26,652

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Wool marketing studies	$26,713	$26,652	$26,652
Unobligated balance	939	--	--
Total appropriation.....	27,652	26,652	26,652

WORK UNDER THIS APPROPRIATION

The work under this appropriation was authorized by Act of May 17, 1928 (U.S.C. title 7, secs. 415b - 415d). The activities include the preparation of wool standards and studies of the handling and marketing of wool. The greatly increased public interest in wool has multiplied the demands upon this Bureau for information and assistance.

The wool standardization work embraces the preparation and distribution of practical forms of the official standards for diameter of fibers of wool and wool top, a renewal and reconditioning service on sets issued, research for the improvement and extension of the standards, etc.

The wool marketing work includes investigation into general and local methods and practices of handling, packing, shipping, storage, and transportation of wool; studies of possible new methods of marketing; and the dissemination, through demonstrations and otherwise, of information helpful to the pro-

ducer. During the past fiscal year study was given to the auction method of selling wool. Extensive experiments in grading were also conducted in the West, some studies relating to branding were made, and educational work was carried on.

Wool scouring and shrinkage studies have been continued and educational work is conducted to improve methods of handling and to eliminate objectionable practices.

EMERGENCY FUNDS

(1) Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
Agricultural Adjustment Administration (transferred to Bureau of Agricultural Economics):			
Salaries and Expenses:			
Securing in San Francisco detailed shipment information in connection with supervision of the fresh deciduous-fruit marketing agreement.	$320	$300	(a)
Assisting in investigations relating to weather factors affecting crop yields.....	5,845	5,320	(a)
Revising monthly estimates of prices received by farmers for fluid milk	7,334	- - -	(a)
Preparing estimates and forecasts of production necessary for the proper operation of marketing agreements covering various crops.....	68,780	27,499	(a)
Conducting a study of adjustments in farming, by regions and type-of-farming areas.....	118,944	- - -	(a)
Assistance in developing the rye program of the Agricultural Adjustment Administration.....	2,839	- - -	(a)
Developing and carrying out a series of coordinated studies dealing with the marketing of dairy products in the New England States.....	2,407	7,200	(a)
Making studies of the economic effects and possibilities of marketing agreements.....	7,225	11,390	(a)
Providing clerical assistance in New York City to prepare special reports on receipts of various products....	92	268	(a)
Developing specific and detailed information in regard to the current and prospective foreign demand situation in connection with import quotas, etc.....	- - -	31,000	(a)

(1) Direct Allotments (Continued)

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
Agricultural Adjustment Administration (transferred to Bureau of Agricultural Economics): Continued.			
Salaries and Expenses: Continued.			
Maintaining at Kansas City, Mo., an information service relative to the dairy and beef cattle industries, including feed surveys, etc.....	- - -	15,780	- - -
Total, Salaries and Expenses.....	213,786	98,757	(a) 82,977
Advances to Agricultural Adjustment Administration:			
Preparing, under direction of the State Corn-Hog Review Board, a tabulation analysis of the contracts offered during the corn-hog campaign and the work sheets prepared by non-signers; assisting farmers in furnishing data required by the contract.....	287,832	- - -	- - -
Improving the basis for the determination of parity prices and the calculation of processing taxes.....	10,027	- - -	- - -
Preparing county estimates of cotton yield and production and estimates of farm value of cotton and cottonseed; calculating county quotas of tax exempt cotton; assisting State Cotton Boards in establishing contract quotas of acreage and production.....	35,697	- - -	- - -
Preparing county estimates of wheat acreage, yield, and production; assisting State Grain Boards of Review to establish uniform procedure in determining contract quotas.....	94,665	- - -	- - -
Total, Advances to A.A.A.	428,221	- - -	- - -
General Expenses:			
Assembling and disseminating information as to location of supplies of feed and forage and as to needs in deficit areas	2,970	- - -	- - -
Grading and inspecting dry skim milk, evaporated milk, butter, and cheese purchased by the Agricultural Adjustment Administration for disposal through the Federal Emergency Relief Administration	9,936	- - -	- - -
Total, General Expenses.....	12,906	- - -	- - -

Not Computed

(1) Direct Allotments (Continued)

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
Agricultural Adjustment Administration (transferred to Bureau of Agricultural Economics):--Continued.			
Payments for Agricultural Adjustment:			
For unliquidated obligations incurred prior to the Butler decision of the United States Supreme Court on Jan. 6, 1936, and to bring statistical and other work to completion through Feb. 29, 1936.....	109,336	- - -	- - -
For bringing to completion the checking of corn-hog contracts executed prior to the Butler decision of the United States Supreme Court on Jan. 6, 1936.....	69,930	- - -	- - -
Total, Payments for Agricultural Adjustment.....	179,266	- - -	- - -
Total, Agricultural Adjustment Administration Funds.....	834,179	98,757	(a) 82,977
Conservation and Use of Agricultural Land Resources, Department of Agriculture (Bureau of Agricultural Economics):			
Improving the basis for the determination of parity income, and expanding the present retail price reporting service.....	6,327	- - -	(a)
For statistical assistance in calculating county ratios of soil-depleting crops to farm land and county productivity indices...	46,127	- - -	(a)
Gathering, assembling, and coordinating economic data relating to farm organization and changes needed from the standpoint of soil conservation and good farm management.....	4,224	295,776	(a)
Gathering and analyzing data and preparing estimates of agricultural income and expenditures for the purpose of determining the degree of parity between the purchasing power of the net income received by persons on farms and persons not on farms.....	1,403	63,597	(a)
Field surveys and statistical analyses for the purpose of furnishing information relative to prospective changes in supplies, demand, and prices of agricultural products essential to determination of policies and plans of operation.....	- - -	50,000	(a)
Gathering, compiling, and analyzing statistics of production, also data on prices paid by farmers for commodities purchased by them; needed by the Program Planning Division.....	- - -	262,700	(a)

(1) Direct Allotments (Continued)

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938
Conservation and Use of Agricultural Land Resources, Department of Agriculture (Bureau of Agricultural Economics):--Continued.			
Economic study of the effect of soil-conservation and crop-adjustment program on livestock production in selected areas of the Corn Belt and Lake States.....	- - -	20,000	(a)
Total, Conservation and Use of Agricultural Land Resources.....	58,081	692,073	(a) 692,073
Emergency Relief Appropriation Act, 1936:			
For a survey of farm mortgages, land values, and transfers, and farm taxes.....	- - -	1,521,140	- - -
Total, Emergency Funds (Direct Allotments)	892,260	2,311,970	775,050

(2) Indirect Allotments
(Financed through other Government agencies)

Project	Estimated obligations, 1937
Working Fund, Agriculture, Flood Control Mississippi River and Tributaries (transfer from War Department): For service in connection with the valuation of farm real estate in areas affected by the flood-control program.....	$13,000

(a) Definite projects can not be shown before the 1938 program is planned.

PASSENGER-CARRYING VEHICLES

The authorization for the purchase of the passenger-carrying vehicles for the Bureau of Agricultural Economics for the current year is $30,300. No increase in the limitation is requested. The estimate contemplates the replacement of 61 worn-out cars, at an average cost of $495 each when the exchange allowances are taken into account.

The use of passenger-carrying cars is necessary to the efficient conduct of the field work of this Bureau. It is necessary for inspectors and graders to move quickly between markets, warehouses, and railroad yards. In most cases it is not feasible to obtain the necessary transportation by any other method quickly enough to enable the employees to conduct their work without much loss of time.

In the case of the market news service, speed is the essence of the service, and where several markets must be covered it can not be done without the use of a car.

Under the Warehouse Act it is necessary for the inspectors to travel between warehouses located in small places or on spur lines where public transportation is inadequate. It is customary for two men to work together in making inspections of warehouses. The use of a car thus saves travel expense as well as time.

The cost to this Bureau for the operation of Government-owned cars is approximately 3 cents per mile. It is necessary to pay employees 5 cents per mile for the use of their personally-owned cars and from 10 to 15 cents per mile for hiring commercial vehicles.

BUREAU OF HOME ECONOMICS

(a) GENERAL ADMINISTRATIVE EXPENSES

Appropriation Act, 1937.....$31,735
Budget Estimate, 1938..... 31,735

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
General administration and business service..	$25,950	$31,735	$31,735
Unobligated balance.....	185	--	--
Total appropriation.....	26,135	31,735	31,735

WORK UNDER THIS APPROPRIATION

The activities under this appropriation include the office of the Chief of Bureau; the business office, covering the general business and administrative activities of the Bureau, such as personnel, accounts, budget, purchasing, correspondence, and Bureau files; and the library work of the bureau.

(b) HOME-ECONOMICS INVESTIGATIONS

Appropriation Act, 1937.....$187,350
Budget Estimate, 1938..... 193,350
Increase..... 6,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Home economics information.....	$17,620	$17,856	$17,856	--
2. Foods and nutrition investigations.....	63,650	73,650	73,650	--
3. Family economics investigations	44,363	44,563	44,563	--
4. Textile and clothing investigations.....	36,295	36,295	42,295	+$6,000(1)
5. Household equipment investigations.....	4,986	14,986	14,986	--
Unobligated balance.....	436	--	--	--
Total appropriation.....	167,350	187,350	193,350	+6,000(1)

INCREASE

(1) The increase of $6,000 is needed for extending studies in wool utilization. Wool growers of the United States have been placed in an acute situation by the recent introduction of spun rayon as a wool substitute, together with the inroads which other synthetic fibers have been making on wool consumption during the past few years. The situation will undoubtedly become more serious in the near future. For this reason, wool producers have made a special appeal to the Department this year for assistance through increased research on wool utilization, placing special emphasis on the use of different grades and qualities of wool in various fabrics and comparison of these with fabrics made of synthetic fibers. With $7,420 allotted for this purpose during the current year an excellent beginning has been made on studies of wool utilization, and three publications reporting upon these researches have been issued. An increase of $6,000 is requested in order to attack a number of new problems requiring study. For this purpose additional personnel and equipment are necessary.

WORK UNDER THIS APPROPRIATION

General.--The Bureau of Home Economics is the unit of the Federal Government devoted exclusively to scientific study of consumer problems. Studies are made of foods, human nutrition, textiles, clothing, housing equipment, and the economic problems of the home from the standpoint of the homemaker and consumer, with a view to promoting the effective use of foodstuffs, textiles, and other products in the home as a means of improving the living conditions of the American people. Satisfactory home living depends not alone on family income but on wise use of that income as well. At the same time the prosperity of agriculture and industry depends in large measure on the proper consumption of foods, textiles, and other products in our thirty million homes. As the chief purchasing agent for the family, the homemaker determines the use that is made of what the farmer grows and what the factory makes. On this Bureau rests the responsibility of making studies of family living which should guide the production and consumption of goods. Through its research and its practical presentation of the results of these studies, the Bureau of Home Economics is giving the consumer the same kind of scientific help that other branches of the Government are giving to the farmer, the manufacturer, and the merchant. At the same time these studies offer guidance to the producing agencies as to what to produce and the form it should take in order to best meet consumer needs. The Bureau works in cooperation with the other bureaus of the Department, the State agricultural experiment stations, and the home-demonstration agents under the Extension Service and other educational agencies and is in close contact with homemakers and professional home-economics workers throughout the country.

1. Home Economics Information.--This work consists of the dissemination of the results of home-economics research in both technical and popular forms so that producers and consumers, research workers, students, teachers, home-makers, and all other groups demanding information on the utilization of foods, textiles, and other products of agriculture and on the standards of living may receive the full benefit of the studies conducted in this Bureau.

2. Foods and Nutrition Investigations.--Research in foods and nutrition is conducted as follows: (1) Collecting, evaluating, and summarizing data on the chemical composition of all classes of foods for the use of consumers and scien-

tific workers in the field of foods and nutrition; (2) studying the nutritional importance of the constituents of natural foods, and determining the amounts of the essential nutrients which are necessary for maintenance, growth, and optimal health of the body; (3) determining how the nutritive value of foods is affected by methods of production, marketing conditions, methods of preservation, such as storage, freezing, canning, etc., and by methods of preparation; (4) analyzing methods of preparation of food with a view to originating, improving, and standardizing processes; (5) establishing the relation between variety, quality, and nutritive value of foods and their uses in food preparation; (6) determining the factors which enter into food quality and the methods for determining and measuring these, and (7), in cooperation with producing groups, investigating the influence of variety, breed, and other production factors on edible quality and nutritive value, using these as a basis for establishing quality standards for food products.

3. Family Economics Investigations.--This work includes an appraisal of the consumption habits of families in different social and economic groups, with special emphasis upon food consumption. In addition, it includes studies of the economics of consumer buying and of household production. These family economics studies yield information of value (1) in determining present levels of living of different groups, and the adequacy of these levels, insofar as this can be measured; (2) in planning for the improvement of living conditions; (3) in furnishing the factual background needed by homemakers, teachers, and social agencies interested in the effective administration of family finances and the wise use of time and energy in household production; (4) in developing policies which will furnish the ultimate consumer with help needed for the intelligent selection of goods and services; (5) in aiding producers and other business men in formulating plans for commodity production and distribution; and (6) in constructing farm indexes for measuring changes in the cost of living of farm families. A large-scale study of consumer purchases, carried out by the Bureau under a grant from the Works Progress Administration, has furnished records from approximately 60,000 families, and these have provided basic data for family living studies on a scale never before possible in this country.

4. Textiles and Clothing Investigations.--Under this project studies are made of the consumer utilization of clothing and household textile materials, particularly of cotton and wool. The work includes (1) the development of consumer buying guides for clothing and household textiles based on studies of qualities which best fit certain needs, and the presentation of facts on informative labeling as an aid in consumer buying; (2) a study of the relative merits of different varieties, grades, and staple lengths of cotton grown under different conditions from the standpoint of their usefulness to the consumer in finished fabrics as measured by the durability of the fabrics, their reaction to wear and laundering, and their suitability for specific purposes; (3) a study of the relative usefulness of different kinds and grades of wool, mohair, and other animal fibers which are or can be produced in this country; (4) a study to compare wool fabrics with fabrics made from synthetic fibers that are now being substituted for wool; (5) the development of more effective ways of using cotton and wool materials in house furnishings; (6) development of more permanent and more satisfactory mill and laundry finishes for cotton fabrics in order to increase the desirability and usefulness of these textiles; and (7) determination of the advantages and disadvantages of certain qualities of fabric and features of design and construction in different articles of clothing as related to their particular use.

5. Household Equipment Investigations.--Under this project standards for housing and equipment are studied from the point of view of the needs of the household in different areas. This includes determining the efficiency of different types of household equipment under varying conditions as a guide to selection and use, with special emphasis on stoves, washing machines, and household refrigeration, in order to furnish a basis for specifications to be used in the purchase of household equipment and to establish standards and grades for such equipment.

EMERGENCY FUNDS

(1) Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
Agricultural Adjustment Administration, General Expenses (transferred to Bureau of Home Economics): Study of utilization and consumption of dairy products (dried milk) distributed through relief channels.....	$22,500	--
Emergency Relief Appropriation Act, 1936: Study of consumer purchases.	--	$1,374,999
Total, Emergency Funds (Direct Allotments).....	22,500	1,374,999

(2) Indirect Allotment

Project	Obligated, 1936	Estimated obligations, 1937
Emergency Relief Appropriation Act, 1935 (for work financed by Works Progress Administration under direct allotments to States, with general supervision by Bureau of Home Economics): Study of consumer purchases.....	$714,297	$318,290

COMMODITY EXCHANGE ADMINISTRATION
(formerly Grain Futures Administration)

This is a new item, in lieu of the item heretofore carried in the Agricultural Appropriation Act for Enforcement of the Grain Futures Act, and is made necessary by the passage of the Commodity Exchange Act (Public No. 675, 74th Congress) approved June 15, 1936, for which no appropriation has heretofore been made.

(a) ENFORCEMENT OF THE COMMODITY EXCHANGE ACT

Appropriation Act, 1937 (Grain Futures Act).....	$196,500
Budget Estimate, 1938 (Commodity Exchange Act)....	590,000
Increase.....	393,500

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
*Enforcement Commodity Exchange Act.....	*$188,364	*$196,500	$590,000	+ $393,500(1)
Unobligated balance.....	* 8,136	- - -	- - -	- - -
Total appropriation.....	*196,500	* 196,500	590,000	+ 393,500(1)

*For the Enforcement of the Grain Futures Act in 1936 and 1937.

INCREASE

(1) The increase of $393,500 for 1938 consists of:

(a) An increase of $397,500 to carry into effect the Commodity Exchange Act of June 15, 1936, amending the Grain Futures Act.--This increase will provide for the first full year's requirement for carrying out the purposes of the Commodity Exchange Act.

Under the Grain Futures Act, the Department since 1922 has been regulating futures trading in wheat, corn, oats, rye, barley, flaxseed, and grain sorghums. The Commodity Exchange Act extends this regulation to future trading and exchange practices affecting cotton, mill feed, butter, eggs, potatoes, and rice. Aside from the additional commodities covered, the new legislation deals also with trade practices and transactions known as wash sales, cross trades, accommodation trades, and fictitious sales. It requires the detection of fraudulent practices, false reports, and bucketing of orders; also the detection and elimination of bucket shops. These and other evils found in

and outside of the various commodity exchanges that are deemed detrimental to the interest and welfare of producers and legitimate trade interests must be ferreted out and corrected. All money, securities, and other property deposited by customers with commission merchants as margins are required to be segregated and separately handled under rules and regulations of the Secretary of Agriculture. The Department is given access to the books and records of all warehouses in which or out of which commodities are deliverable on futures contracts, and the law requires the making of reports and the keeping of records by the operators of such warehouses.

Additional responsibilities include the fixing (by the Commodity Exchange Commission) of limitations on the daily trades and speculative positions of traders for each commodity at each contract market. Such limitations must be changed and modified from time to time as marketing conditions require. The registration of commission merchants and floor brokers, revocations, etc., and the responsibilities incident to various other provisions of the Act require careful and constant study.

Organizations of substantial character are necessary at both New York, N.Y., and New Orleans, La., the two principal American cotton markets. The former is the largest speculative cotton market in the world. Provision must be made also for additional help and facilities to supervise cotton futures trading at Chicago, Ill. Supervision of butter, egg, and potato futures at Chicago, Ill., butter and egg futures at New York, N.Y., and mill feed futures at Kansas City and St. Louis, Mo., will be necessary. The general expansion of supervisional activities in the field, including the supervision of margin accounts and the checking of these accounts against deposits of money and investments belonging to such accounts, and the requirement for examining the books and records of warehouses and of correspondents of commission houses scattered throughout the United States, necessitate the obtaining of additional technical, accounting, and clerical assistance at Chicago, Ill., New York, N.Y., Kansas City, Mo., Minneapolis, Minn., Seattle, Wash., and perhaps also at other contract markets where offices are not now established. Technical, legal, and other assistance will be required in Washington, D.C., in connection with hearings incident to (1) the fixing of initial trading limitations, (2) changes therein, (3) the promulgation of rules and regulations and the issuance of orders from time to time, including amendments thereto, (4) alleged violations of the Act and the rules and regulations thereunder, and (5) the revocation of registration of futures commission merchants and floor brokers; and other hearings as may be required. Adequate provision must be made for centralized direction of all activities necessary to carry out the intent and purposes of the new law.

(b) A decrease of $4,000 for office space at Chicago, Ill.--In dropping this item as a non-recurring expense for 1938, it is anticipated that adequate space will be available for the Chicago office, now occupying rented space, by July, 1937, in the Federal Court House Building.

CHANGE OF LANGUAGE

The language for this item has been changed to read as follows:

ENFORCEMENT OF THE [GRAIN FUTURES] COMMODITY EXCHANGE ACT

To enable the Secretary of Agriculture to carry into effect the provisions of the Grain Futures Act, approved September 21, 1922 (U.S.C., title 7, secs. 1-17), [$196,500] as amended by the Commodity Exchange Act of June 15, 1936 (49 Stat., pp. 1491-1501), $590,000, to be immediately available, of which amount not to exceed [$50,740] $194,920 may be expended for personal services in the District of Columbia.

The language "to be made immediately available" is recommended in order that funds may be available for essential purposes prior to July 1, 1937. The amendments (Commodity Exchange Act) have actually been fully effective since September 13, 1936, but available funds are insufficient to provide supervision for other than the commodities (grains) as covered by the Grain Futures Act of 1922.

WORK UNDER THIS APPROPRIATION

The work under the appropriation for the enforcement of the Grain Futures Act requires the control and supervision of future trading in grain on 13 boards of trade and exchanges designated as contract markets by the Secretary of Agriculture. This work is carried on through 6 field offices located at Chicago, Ill., Minneapolis, Minn., Kansas City, Mo., New York, N.Y., Seattle, Wash., and Sacramento, Calif., and involves (1) observation of trading operations, (2) compiling and publishing daily reports on volume of trading and amounts of open interest, (3) examination of books and records of clearing members for the purpose of discovering and preventing irregularities, (4) examination of market news and gossip items to prevent the dissemination of false and misleading crop and market information, (5) maintenance of a daily check on accounts of large traders, (6) investigation of complaints, and (7) special studies and investigations relating to the economic functions and general utility of the future markets for hedging and merchandising purposes.

The work required by the Commodity Exchange Act is briefly outlined in the statement "(1)" explaining the request for additional working funds.

The work of the Commodity Exchange Administration (superseding the Grain Futures Administration under order of theSecretary of Agriculture dated July 1, 1936) is carried on under one project, the various classes of activities, both under the Grain Futures Act and the amendments of June 15, 1936, being so closely interwoven as to prohibit separation. Due to the necessity for flexibility in the handling of funds to meet developments in the marketing situation, which can not be anticipated, allotments are not made to field stations, the control of the funds available being maintained in the Washington office.

FOOD AND DRUG ADMINISTRATION

(a) GENERAL ADMINISTRATIVE EXPENSES

Appropriation Act, 1937 ..... $100,802
Budget estimate, 1938 100,802

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
General administration and business service.....	$100,717	$100,802	$100,802
Unobligated balance.....	85	- - -	- - -
Total appropriation.....	100,802	100,802	100,802

WORK UNDER THIS APPROPRIATION

This appropriation is used for general administrative expenses, such as general supervision, accounting, editorial work, purchases and distribution of supplies, filing, recording, and the like, applicable to operations in connection with the acts enforced by the Food and Drug Administration.

(b) ENFORCEMENT OF THE FOOD AND DRUGS ACT

Appropriation Act, 1937 .....$1,600,000
Budget Estimate, 1938 1,800,000
Increase 200,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase
1. Enforcement operations under Food and Drugs Act on:				
(a) Beverages and beverage products	$48,496	$48,300	$48,300	- - - -
(b) Cereal products	19,311	31,750	31,750	- - - -
(c) Chocolates and saccharin	39,229	38,470	38,470	- - - -
(d) Dairy products	133,038	140,600	190,600	+$50,000 (1
(e) Eggs	9,843	11,860	11,860	- - - -
(f) Fishery products	144,843	150,730	195,730	+ 45,000 (2
(g) Flavors and spices	38,424	36,260	36,260	- - - -
(h) Fruit products	264,808	280,390	280,390	- - - -
(i) Feeds, stock	5,585	6,270	6,270	- - - -
(j) Meat products and poultry	7,259	7,140	7,140	- - - -
(k) Miscellaneous products	21,972	22,140	22,140	- - - -
(l) Nuts and nut products	11,875	13,570	13,570	- - - -
(m) Oils and fats	49,921	53,000	53,000	- - - -
(n) Vegetable products	174,224	180,430	225,430	+ 45,000 (3
(o) Crude drugs	14,259	14,360	14,360	- - - -
(p) Pharmaceuticals	255,321	259,101	269,101	+ 10,000 (4
(q) Proprietary preparations	165,395	170,070	170,070	- - - -
(r) Vitamin preparations	34,932	37,345	87,345	+ 50,000 (5
Total, Enforcement operations under Food and Drugs Act	1,438,735	1,501,786	1,701,786	+200,000
2. Development of methods for detecting food adulterations or misbrandings	62,074	62,104	62,104	- - - -
3. Investigation of methods of analysis and potency of drugs and poisons	36,060	36,110	36,110	- - - -
Transferred to "Salaries and Expenses", Office of the Solicitor	3,420	- - - -	- - - -	- - - -
Unobligated balance	590	- - - -	- - - -	- - - -
Total appropriation	1,540,879	1,600,000	1,800,000	+200,000

INCREASES

General Statement.

The Food and Drugs Act applies to every type of food and all classes of drugs, whether of domestic or foreign origin. Only those products originating in and disposed of wholly within the borders of a State are exempt from its provisions.

The task of supervising this traffic has become increasingly complicated and difficult. An enormous number of commodities, which a decade or two ago were made wholly in the household kitchen, are now manufactured commercially and shipped in interstate commerce. A great many new medicinal products have appeared within the same period. To estimate the amount of such articles subject to the Food and Drugs Act is difficult because of fluctuating prices and volumes. It is safe to say, however, that the combined value of food and drug products requiring attention is more than $15,000,000,000 annually.

Adequate attention under the law to this prodigious traffic would be an imposing task if the routine channels of commerce of the pre-war period, namely, established steamboat and rail lines, were the only arteries to be watched. Supervision of interstate traffic by rail and steamship lines with fixed destinations and discharge points, where samples can readily be obtained, offers a comparatively simple inspection problem. During the past twenty years, however, such a vast proportion of this traffic has been transferred to truck lines that the problem of inspection and supervision has been enormously complicated.

At present about 86 percent of the Food and Drug Administration's attention is devoted to interstate traffic in foods and drugs and about 14 percent to imports. Thirty percent of the total time is given to the drug traffic and 70 percent to foods. Both in the import and in the domestic field first attention is devoted to forms of adulteration or misbranding affecting public health; second, to those involving contamination of foods with filth or decomposition. Because of present limitations of force and funds, the Administration is admittedly required to neglect many classes of food and drug products in the import field which should be permitted entry only after competent inspection and analysis of every arriving shipment. For the same reason it is obliged to overlook known abuses in the domestic field, particularly those involving frauds, cheats, and even, in some instances, cases involving distribution of filthy, decomposed, or otherwise unfit foods.

Expenditures are made under a very definitely formulated plan. The proposed allotments to the various projects, as indicated in the tabulated statement, represent the best estimate that can be made at this time of the most effective distribution of the proposed increase. The breakdown in the work projects corresponds roughly with the various food and drug industries, each of which requires regulatory attention.

The amount of funds allotted to each project is subject to drastic revision as the fiscal year progresses. It is impossible to determine in advance when an outbreak of food poisoning, or the uncovering of a new form of economic cheat in a particular industry, may require a very much larger proportion of the funds than has been previously estimated, especially where the estimate is made a year in advance of the beginning of the fiscal year. For example, last year the unprecedented floods in the East contaminated huge quantities of food materials subject to the Food and Drug Act, making them definitely dangerous for human consumption. In the emergency it was necessary to detach inspectors from previously planned work to cooperate

with local authorities in preventing the sale of the flood-damaged foods. An emergency of this kind can be met only by curtailment of expenditures on other work. However, at least the amount estimated for each project should be used on that project insofar as it is possible to do so.

The increase of $200,000 in this item for 1938 consists of:

(1) An increase of $50,000 in Work Project 1-d, "Enforcement operations under Food and Drugs Act on dairy products." There are approximately 3,000 creameries in the United States. The total production of creamery butter is approximately 1,500,000,000 pounds annually, requiring approximately 56,000,000 cans of cream. While some improvement has been made during the past two years as the result of our increased regulatory activities, intensive operations on both the raw material and the finished products will be required for several years. Particularly the work on filth and decomposition in cheese and dairy products other than butter should be extended. Little work has been done on the question of filth in such products as cheese, condensed milk, and dried milk. In our Central District alone there are 215 condensed-milk plants, 2,200 cheese plants, and a large dried-milk industry, all of which need regulatory attention. The dairy industry is cooperating with the Department in an effort to eliminate the extensive commerce in filthy cream and filthy butter and is demanding that additional work be carried on. It is also essential to see that butter meets the 80 percent butter-fat requirement of the law.

(2) An increase of $45,000 in Work Project 1-f, "Enforcement operations under Food and Drugs Act on fishery products." Conditions in the fish industry have made it necessary to cover a larger proportion of that industry than has been possible in some of the other food industries. On the import side, attention has been given to non-sterilized fish in cans, which have been the cause of botulinus outbreaks, to canned tuna from Japan, Mexico, and Russia, and to frozen tuna from Japan imported for canning. Canned fish from Spain and other countries have been found contaminated with lead due to the method of packing in soldered tins. The canning of decomposed fish is one of the chief regulatory problems involved in this industry. The Western District particularly is required to supervise immense fish-canning industries. The annual value of the salmon pack is about $45,000,000. On the Pacific coast the approximate annual packs are 2,000,000 cases of sardines, 1,796,000 cases of mackerel, and 2,500,000 cases of tuna fish. The salmon pack may aggregate more than 8,000,000 cases.

Because of the lack of funds, practically no attention has been given to the inspection of codfish and herring produced in Alaska and shipped to the United States. Considerable quantities of salted anchovies and sardines are also packed. These are susceptible to quick spoilage, and their production should be inspected regularly. Cooked crab meat is also subject to dangerous contamination and annually requires extensive surveillance. The marketing of rotten and contaminated fish products must be stopped.

(3) An increase of $45,000 in Work Project 1-n, "Enforcement operations under Food and Drugs Act on vegetable products." Work on this project includes not only the vast volume of fresh vegetables but also an extensive

commerce, both import and interstate, in canned vegetables. Serious health hazards are presented in certain sections through the irrigation of vegetables with sewage-contaminated water. These dangerous conditions will continue until various municipalities are forced to the construction of proper sewage-disposal plants. Insect ravages continually present new problems, as exemplified by the tomato output. Worm infestations prevailing in various parts of the country require constant supervision to prevent the utilization of filthy material by less careful canners. The McNary-Mapes Amendment to the Food and Drugs Act, which was passed several years ago, has had most inadequate enforcement up to this time because of our inability to finance the work necessary for its enforcement. A portion of the proposed increase would be used to enforce the McNary-Mapes Amendment.

(4) An increase of $10,000 in Work Project 1-p, "Enforcement operations under Food and Drugs Act on pharmaceuticals." Our coverage of pharmaceutical products has been very limited when it is considered that on the average it would not cover the examination yearly of more than one batch of manufactured products of each manufacturer. Furthermore, our coverage has been limited almost exclusively to the more therapeutically important drugs. It has been impossible to make examination of many pharmaceutical preparations which are in themselves important but which have less public-health bearing than those to which some attention has already been given. The work should be expanded on biological products and glandular substances, which have as yet been hardly touched, and considerable work on specialties sold directly to the physician under the manufacturer's own formula. A proper regard for the public health requires that pharmaceuticals which are used so extensively by physicians in the treatment of the most serious diseases should be regularly and thoroughly examined.

(5) An increase of $50,000 in Work Project 1-r, "Enforcement operations under Food and Drugs Act on vitamin preparations." We have organized a Vitamin Division to more adequately handle the work in this most important field. The public is becoming more and more vitamin conscious, and unscrupulous manufacturers are putting out products labeled with grossly false statements regarding vitamin potency. A beginning toward controlling the labeling of vitamin products will be made during the current year. The work should be extended during the next fiscal year at least to the amount represented by the proposed increase of $50,000 to provide additional protection to human beings and the poultry industry. With the establishment of the Vitamin Division, the field inspection work will be extended.

One of the most important commodities requiring attention in this field is cod-liver oil. The United States Pharmacopoeia sets up a definite vitamin requirement for this product. Cod-liver oil is used in enormous quantities as an adjunct to the daily diet especially of infants and growing children. If it is adulterated or lacking in the required vitamins, A and D, the child suffers from nutritional deficiency ailments.

Not only is this product of vital importance to child welfare; it is now used as an essential ingredient in animal feeding, particularly in poultry production. Of more than 4,500,000 gallons of cod-liver oil used in the United States last year, almost all from foreign sources, more than half was used for animal and poultry feeding. Preliminary investigation

has shown that much of this animal and poultry feeding grade of cod-liver oil is seriously deficient in vitamin potency. Farmers and poultry raisers are demanding protection against such low-grade material which causes them serious losses in chicks and fowl and egg production. Practically the entire time of the Vitamin Division is now being devoted to the cod-liver oil project, with almost entire neglect of other vitamin-bearing products. Even so, present facilities do not permit testing more than a fraction of the importations of cod-liver oil. Between July 1 and September 23, 1936, 207 shipments, totaling 970,000 gallons of oil, were sampled and chemically tested at the ports. It was possible to assay only 66 shipments, totaling 198,000 gallons, for vitamin D. Assays showed that more than half of this amount, or 41 shipments aggregating 114,000 gallons, was deficient in vitamin D and was denied entry. The vital importance of more extended attention to the vitamin field is obvious.

WORK UNDER THIS APPROPRIATION

General.--This appropriation provides for the enforcement of the Food and Drugs Act, commonly called the Pure Food Law, approved June 30, 1906 (U.S.C. title 21, Secs. 1-15). The purpose of this Act is to prevent the shipment in interstate or foreign commerce, and the manufacture and sale in the District of Columbia and other territory in which the Federal Government has jurisdiction, of adulterated or misbranded foods and drugs.

1. Enforcement Operations under Food and Drugs Act.--This work consists of maintaining supervision of the enormous volume of foods and drugs shipped under the jurisdiction of the Food and Drugs Act. This requires the inspection of factories, the examination of shipments of foods and drugs, the microanalytical, bacteriological, pharmacological, and physical examination, as necessary, of samples, and the preparation of the evidence developed for presentation in court on such samples of foods and drugs shipped in violation of the Act. It also includes the examination of foods and drugs offered for entry into this country and the exclusion of those products that fail to comply with the provisions of the Act.

2. Development of Methods for Detecting Food Adulteration or Misbranding.--This work consists of developing methods of chemical analyses and bacteriological, microanalytical, and physical examinations for detecting food adulterations and misbranding for use in enforcing the Food and Drugs Act.

3. Investigation of Methods of Analyses and Potency of Drugs and Poisons.--This work consists of investigations of methods for chemical analysis and biological examinations of the potency of drugs and poisons for use in enforcing the Food and Drugs Act.

(c) ENFORCEMENT OF THE TEA IMPORTATION ACT

Appropriation Act, 1937.....$40,094
Budget Estimate, 1938 40,094

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of the Tea Importation Act.....	$39,922	$40,094	$40,094
Unobligated balance.....	172	- - -	- - -
Total appropriation.....	40,094	40,094	40,094

WORK UNDER THIS APPROPRIATION

This appropriation provides for the enforcement of the Tea Importation Act, approved March 2, 1897 (U.S.C., title 21, secs. 41-50). Every consignment of tea imported into the United States is inspected both as to purity and quality. A board of tea experts determines a suitable standard for tea each year, and no tea for beverage purposes is permitted entry into the United States that falls below that standard. Before the enactment of the Tea Importation Act much low-grade tea that was unfit for use was sent to the United States.

(d) NAVAL STORES ACT

Appropriation Act, 1937 ..... $34,700
Budget Estimate, 1938..... 34,700

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Enforcement operations under the Naval Stores Act.....	$23,986	$24,185	$24,185
2. Service operations under the Naval Stores Act.....	10,430	10,515	10,515
Unobligated balance.....	284	- - -	- - -
Total appropriation.....	34,700	34,700	34,700

WORK UNDER THIS APPROPRIATION

General.--This item provides for the enforcement of the Naval Stores Act, approved March 3, 1923 (U.S.C. title 7, secs.91-99), which is aimed to prevent the sale or shipment within the jurisdiction of the Federal Government of rosin and turpentine that are adulterated or misbranded. It also provides for the establishment of grades and authorizes the Secretary of Agriculture to examine samples to determine the grade and to furnish certificates of grade at the request and expense of interested parties.

1. Enforcement Operations under the Naval Stores Act.--Naval stores offered for import or export, as well as naval stores that enter interstate commerce, are subject to all the provisions of the Act. Rosin and turpentine that are shipped within the jurisdiction of the Act, that is, that enter interstate commerce, are kept under surveillance and suspected shipments examined from time to time to see whether or not they comply with the provisions of the Act. This involves taking samples and analyzing them. When evidence is obtained that adulterated or misbranded rosin or turpentine is being shipped or sold within the jurisdiction of the Act, the facts are reported to the Department of Justice for the institution of court action. Members of the staff employed under this appropriation appear as witness in contested court cases and testify as to the facts involved.

2. Service Operations under the Naval Stores Act.--The Department examines, if practicable, upon request of any interested person, any naval stores and analyzes, classifies, or grades the same on tender of the cost thereof as required by the Secretary of Agriculture under such regulations as he may prescribe. Certificates are furnished showing the analysis, classification, or grade of such naval stores, which certificates shall be prima facie evidence of the analysis, classification, or grade of such naval stores and of the contents of any package from which the same may

have been taken, as well as of the correctness of such analysis, classification, or grade, and shall be admissible as such in any court. Fees received for this service average nearly $12,000 a year, which are deposited in the U. S. Treasury to the credit of "miscellaneous receipts". The project is therefore self-supporting.

(e) ENFORCEMENT OF THE INSECTICIDE ACT

Appropriation Act, 1937.....	$208,180
Budget Estimate, 1938.....	208,180

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
1. Enforcement operations under the Insecticide Act.....	$180,680	$180,910	$180,910
2. Investigation of methods of testing and efficacy of insecticides and fungicides	27,235	27,270	27,270
Unobligated balance.....	265	- - -	- - -
Total appropriation.....	208,180	208,180	208,180

WORK UNDER THIS APPROPRIATION

General.--This appropriation provides for the enforcement of the Insecticide Act approved April 26, 1910 (U.S.C. title 7, secs. 121-134). The Insecticide Act makes illegal the manufacture, sale, or transportation in interstate commerce of adulterated or misbranded insecticides and fungicides, as well as their importation and exportation. It prescribes definite standards to which all lead arsenates and Paris greens subject to its provisions should conform. It provides that all insecticides and fungicides, other than lead arsenates and Paris greens, that contain inert ingredients, shall bear, upon the face of the principal label of every package, a statement giving the name and quantity of each inert ingredient of the preparation, with a statement that such ingredient is inert, or, instead, a statement giving the name and quantity of each active ingredient, with the percentage of the combined inert ingredients. The principal labels for insecticides, other than lead arsenate and Paris green, and for fungicides that contain arsenic or compounds of arsenic, must show the percentage of arsenic present. Any false or exaggerated claim as to the efficacy of an

insecticide or fungicide constitutes a violation of the law. The Act requires further that all insecticides and fungicides must be up to the standards under which they are sold and that no insecticide or fungicide shall contain any substance or substances that will injure the plant on which it may be used.

1. Enforcement Operations under the Insecticide Act.--The work performed on this project consists of the collection of samples of insecticides and fungicides, including disinfectants; making chemical analyses; performing actual field tests where necessary; bacteriological tests; and the preparation of the evidence developed for presentation to the courts on such samples of insecticides and fungicides shipped in violation of this Act.

2. Investigation of Methods of Testing and Efficacy of Insecticides and Fungicides.--This work consists of investigating and developing methods of chemical analyses of insecticides and fungicides; investigating and developing methods for bacteriological testing of disinfectants; investigating and developing methods for field testing of insecticides and fungicides; and the testing of ingredients or proprietary preparations to determine their efficacy as insecticides and fungicides.

(f) ENFORCEMENT OF THE MILK IMPORTATION ACT

Appropriation Act, 1937	$19,241
Budget Estimate, 1938	19,241

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of the Milk Importation Act	$18,897	$19,241	$19,241
Unobligated balance	344	- - -	- - -
Total appropriation	19,241	19,241	19,241

WORK UNDER THIS APPROPRIATION

This appropriation provides for the enforcement of the Milk Importation Act approved February 15, 1927 (U.S.C. title 21, secs. 141-149). The Act requires inspection both at the source and at the ports of entry. The work of enforcing the Act, therefore, involves the supervision of the sanitary inspection of Canadian shipping plants and dairies from

which milk is shipped to the United States and supervision of the physical examination and, in most instances, tuberculin testing once a year of cattle from herds producing milk shipped to the United States, this work being carried out in collaboration with Canadian officials as authorized by the Act. The work also involves bacteriological examinations and temperature tests of sufficient representative samples of all imported milk and cream to insure compliance with the Act at ports of entry. Milk may be brought into the United States at any port along the Canadian border, but the bulk of the milk and cream imported from Canada comes in through New York and New England ports of entry.

(g) ENFORCEMENT OF THE CAUSTIC POISON ACT

Appropriation Act, 1937.....$24,741
Budget Estimate, 1938..... 24,741

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of the Caustic Poison Act.....	$24,600	$24,741	$24,741
Unobligated balance.....	141	- - -	- - -
Total appropriation.....	24,741	24,741	24,741

WORK UNDER THIS APPROPRIATION

Under this item is conducted the work of enforcing the Caustic Poison Act, approved March 4, 1927 (U.S.C., title 15, secs. 401-411). This Act imposes upon the Department the obligation of seeing that the large number of preparations containing caustic or corrosive substances and sold in interstate or foreign commerce for household use are correctly labeled with the common name of the substance, with the word "Poison", with directions for treatment in case of accidental personal injury, and with the name and place of business of the manufacturer, packer, seller, or distributor. To enforce the Act samples must be collected from the products, their composition determined by chemical analysis, and such tests made as will establish whether any or all of the ingredients are caustic or corrosive and whether the directions given in case of injury are correct and adequate.

(h) ENFORCEMENT OF THE FILLED MILK ACT

Appropriation Act, 1937.....	$10,000
Budget Estimate, 1938.....	10,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of the Filled Milk Act.....	- - -	$10,000	$10,000

WORK UNDER THIS APPROPRIATION

This appropriation provides for the enforcement of the Filled Milk Act, approved March 4, 1923 (U.S.C., title 21, secs. 61-63), as amended by the Act of August 27, 1935 (U.S.C., Supp. I, title 21, sec. 64). The Act prohibits the shipment in interstate or foreign commerce of so-called filled milk, which is made by the removing of butterfat and the substitution of other fats. Samples of shipments of milk products suspected of being in violation of this Act are collected and chemically analyzed. When products are found to be in violation of the Act, the facts are reported to the Department of Justice for appropriate court action. Employees of the Food and Drug Administration appear as witnesses in contested court cases and furnish testimony regarding violations.

(i) ENFORCEMENT OF THE SEA-FOOD INSPECTORS ACT

Appropriation Act, 1937.....	$40,000
Budget Estimate, 1938.....	40,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)
Enforcement of the Sea Food Inspectors Act.....	- - -	$40,000	$40,000

WORK UNDER THIS APPROPRIATION

This work includes inspection of raw materials, the various processes of packing, the sanitary conditions involved, and the finished product. The appropriation will provide for the payment of the salaries of sea-food inspectors for approximately five months of the fiscal year. Thereafter, the salaries of inspectors and the administrative and miscellaneous expenses incurred in providing this service will be paid for from funds contributed by the packers receiving the service.

The original amendment (U.S.C., title 21, sec. 14a), authorizing the inspection of seafood establishments at the request of any packer provided that the entire cost of the inspection would be paid by the packer. This amendment was further amended by "An Act to amend section 10A of the Federal Food and Drugs Act of June 30, 1906, as amended", approved August 27, 1935 (U.S.C., Supp.I, title 21, Sec. 14a), providing in substance that the contributed funds of the packers would be used for all necessary operative and administrative expenses and for salaries of additional inspectors when necessary to supplement the number of inspectors for whose salaries Congress has appropriated. Congress has appropriated $40,000 for the purpose of paying the salaries of inspectors, and it is estimated that the additional cost for salaries of inspectors and for other operating and administrative expenses for the current fiscal year will be $60,000, this amount to be contributed by the packers.

The work under this appropriation involves the assignment of one or more seafood inspectors at each seafood plant approved for inspection. The work of the inspectors includes the inspection of the raw fish delivered to the plant, of the entire packing process, of the sanitary conditions involved, and of the finished product, including the labeling.

PASSENGER-CARRYING VEHICLES

The authorization for purchase of passenger-carrying vehicles contemplates an increase of $320 ($20,000 in 1937; $20,320 estimated for 1938). As shown in the budget schedules, the $20,320 authorization for 1938 would permit the replacement of 30 old vehicles and the purchase of 13 additional cars, at a net cost, when exchange allowances are taken into account, of $472 per car. The 13 additional cars are needed because of the proposed increase in the staff of inspectors.

The use of automobiles for the purpose of carrying on inspection work under seven acts enforced by the Food and Drug Administration is essential. Factories, dairies, orchards, canneries, warehouses, retail establishments, and other places where foods, drugs, insecticides, and naval stores are manufactured, produced, or distributed must be visited and inspected. Shipments of these commodities by freight, express, and trucks must be kept under surveillance. Samples must be collected and delivered for shipment to laboratories. This can be done most economically and efficiently by the use of automobiles. Automobiles can be obtained for the purpose by hiring commercial cars, by using personally owned cars of employees on the mileage basis, or by the purchase of Government owned

cars. The latter method has been found to be the most economical in the work of the Food and Drug Administration.

The 30 cars to be exchanged are cars which, during the fiscal year 1938, will have been used for the maximum number of miles of economical operation.

SOIL CONSERVATION SERVICE

The estimates for 1938 include items totaling $25,000,000 for the work of the Soil Conservation Service. This agency was established in the Department of Agriculture pursuant to Section 5 of the Soil Conservation Act of April 27, 1935. For a number of years prior to that date, the Department of Agriculture had, through its established bureaus, conducted experimental work in the prevention of soil erosion. Augmented work, largely of a demonstrational nature, had also been under way in the Department of the Interior since 1933 under the direction of an emergency organization designated as the Soil Erosion Service. This agency was transferred to the Department of Agriculture on March 25, 1935, and shortly thereafter it was designated as the Soil Conservation Service pursuant to the Act of April 27, 1935. To this new agency was transferred the research work in soil erosion formerly conducted by the Bureaus of Agricultural Engineering and Chemistry and Soils and the erosion nurseries which were being established by the Bureau of Plant Industry under emergency fund allotments. In the fiscal years 1935 and 1936 the work of the Soil Conservation Service was financed principally by allotments from emergency appropriations. For 1937 an appropriation of $24,869,265 was provided in the regular Budget and $8,566,453 had been allocated from emergency funds for this work up to January 1, 1937.

The Budget estimate of $25,000,000 for 1938 is $8,435,718 less than the funds available for 1937. The amounts from all sources for 1936 and 1937 and estimated for 1938 are shown in the following table:

Source of funds	Available, 1936	Available, 1937	Budget estimate, 1938	Increase or decrease, 1938
Regular funds:				
Agricultural Appropriation Act:				
Soil Erosion Investigations . .	$182,210	---	---	---
Plant Reserve Stations (Bureau of Plant Industry)	483,198	---	---	---
Soil Conservation Service . . .	---	$24,869,265	$25,000,000	+$130,735
Supplemental Appropriation Act, 1936	6,284,000	---	---	---
Total, Regular funds.	6,949,408	24,869,265	25,000,000	+ 130,735
Emergency funds:				
National Industrial Recovery. . .	369,827	48,875	---	- 48,875
Public Works Administration . . .	1,608,723	307,936	---	-307,936
Emergency Relief Appropriation Act, 1935.	25,070,756	3,382,209	---	-3,382,209
Emergency Relief Appropriation Act, 1936.	---	4,755,000	---	-4,755,000
Puerto Rico Trust Fund, Sugar Processing Taxes	7,208	---	---	---
Agricultural Adjustment Administration (Payments for Agricultural Adjustment): Substitution for Puerto Rico Trust Fund . . .	74,792	72,433	---	- 72,433
Total, Emergency funds. . .	27,131,306	8,566,453	---	-8,566,453
Total (All funds)	34,080,714	33,435,718	25,000,000	-8,435,718

(a) SALARIES AND EXPENSES - PREAMBLE

Changes in Language

The following changes in language are recommended in the introductory clause to "Salaries and Expenses":

(1) The words "Salaries and Expenses, Soil Conservation Service" have been eliminated, since this is merely a repetition of the title of the appropriation. This will make the language conform with that used in the introductory paragraphs of other bureaus. The statutory reference has also been amended to bring it up to date.

(2) Provision is made for the construction of twenty buildings, instead of thirty-four buildings in the 1937 Act, at the limit cost of $15,000, which are necessary in connection with researches under the appropriation "Soil and Moisture Conservation and Land-Use Investigations" and for the work of nurseries.

(3) A new proviso has been added to this paragraph reading:

> That reproductions of such aerial or other photographs, mosaics, and maps as shall be required in connection with the authorized work of the Soil Conservation Service may be furnished at the cost of reproduction to Federal, State, county, or municipal agencies requesting such reproductions, the money received from such sales to be deposited in the Treasury to the credit of this appropriation.

The Soil Conservation Service already has in its possession and is accumulating a very large library of aerial and other photographic negatives and mosaics. This material has been acquired with public funds, and prints therefrom should be readily available to any interested agency. Under present authority, however, prints can not be furnished to non-Federal agencies on a reimbursement basis and the receipts therefrom would automatically go to the general funds in the Treasury. The funds in the regular appropriation of the Soil Conservation Service are inadequate to permit the expense involved in the furnishing of prints to other agencies. It is, moreover, impossible to determine in advance the number or type of prints which may be requested in a given year and which, if known, might serve as a basis for recommending a definite amount to be added to the appropriations to cover the cost of reproduction. It seems desirable, therefore, to have the moneys received from sales deposited to this appropriation.

(b) GENERAL ADMINISTRATIVE EXPENSES

	Regular	Emergency	Total
Appropriation, 1937	$475,000	$500,000	$975,000
Budget Estimate, 1938	775,000	---	775,000
Net change	+300,000	- 500,000	- 200,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase or decrease
General administration and business service:				
Obligated:				
Regular	-- ---	$475,000	$775,000	+$300,000(1)
Emergency	$1,183,653	500,000	-- ---	- 500,000
Total obligation	1,183,653	975,000	775,000	- 200,000
Unobligated:				
Regular	-- ---	-- ---	-- ---	-- ---
Emergency	500,000	-- ---	-- ---	-- ---
Total appropriations:				
Regular	-- ---	475,000	775,000	+ 300,000(1)
Emergency	1,683,653	500,000	-- ---	- 500,000
Total, All Funds	1,683,653	975,000	775,000	- 200,000

(1) An increase of $300,000 in regular funds for general administration. This increase in the regular appropriation results from the fact that no emergency funds are expected to be available in 1938 out of which to supplement the regular appropriation, as is the case in the fiscal year 1937. The regular 1937 appropriation of $475,000 for general administrative expenses is being supplemented by an allotment of $500,000 from emergency funds, making a total for this purpose in 1937 of $975,000. While the 1938 Budget estimate of $775,000 for general administrative expenses shows as an increase of $300,000 over the regular appropriation for 1937, it is actually $200,000 less than the total (regular and emergency funds) available for the same purpose during the current year. The 1938 estimate is based upon a careful survey of the administrative work required to be done in connection with the extensive activities of the Service and the personnel and other items of expense necessary for their proper functioning.

The increase for 1938 is attributable to an under-estimate for the 1937 Budget rather than an actual increase in costs. When the 1937 Estimates were prepared there was virtually no experience with the operation of the Soil Conservation Service as a large organization to guide in the preparation of estimates, and it was not anticipated that the administrative work would be as large and involved as it now proves to be. At that time plans for the work to be carried on by the Service were in the formative stage, and, while due consideration was given to the requirements of the technical and operating branches of the Service, administrative requirements were too greatly minimized.

The following tabulation is illustrative of the increase in personnel in, and the volume of work performed by, the Fiscal Section of the Division of Business Management as of June 1935 (basis of 1937 estimate) and as of June 1936 (basis of 1938 estimate):

Fiscal Section, Division of Business Management

	June, 1935	June, 1936
Personnel	54	129
Encumbrance documents recorded	4,300	21,000
Vouchers recorded in allotment and objective classification ledgers	4,000	14,000
Letters written	103	845
Transmittals to Treasury State Accounts Office	0	11,000
Advices of allotment prepared and recorded	60	1,000
Allotment accounts maintained	67	1,850
Reports	2	8
Special requests for information and figures	10	20
General ledger postings	9,500	30,000
Adjustment vouchers	15	150
Vouchers audited	436	12,943
Administrative audit difference statements	384	1,000
Travel authorizations issued	2,831	4,096
Vouchers received during fiscal year	34,199	92,128

The many ramifications of the general business management, fiscal, procurement, and personnel work were not fully realized and inadequate estimates were made. It was also anticipated that a great part of the fiscal, procurement, and personnel work would be decentralized from Washington and be performed in the regional and other field offices. While steps have been taken toward this decentralization, the plan could not be completed to the extent anticipated in estimating for the 1937 appropriation, nor is it now believed that this can be accomplished to the extent at first anticipated.

In order to do the essential work, 492 employees are now engaged on this project, with an annual salary roll of $834,460, and other expenses are running at a rate of approximately $250,000 per annum. At this rate, the total annual cost for administration would aggregate $1,084,460. However, curtailments will have to be made during the balance of the fiscal year in order to bring the expenditures for administration for 1937 within the limit of $975,000. As stated above, the estimate for 1938 represents an actual reduction of $200,000 in available funds below the 1937 total.

The 1938 estimate of $775,000 will provide for 327 employees, with annual salaries totaling $600,780, leaving $174,220 for other expenses. This represents a reduction below the present set-up of 165 people (33 percent), $233,680 in salaries (28 percent), and $75,780 (30 percent) for other expenses.

Items Included in Soil Conservation Service Estimates Usually Included in Departmental Rather than Bureau Estimates

Included in the estimate for general administrative expenses of the Soil Conservation Service are several items usually carried in departmental rather than bureau estimates. When the Soil Conservation Service has had several years of actual operation under regular funds a more accurate determination can be made of the amounts required for items in this category and transfers will then be proposed and estimates made thereafter under the usual departmental headings. For the present these are items of $50,000 for rent in the District of Columbia,

$50,000 for administrative printing and binding, and $71,620 for the salaries of employees detailed from the Soil Conservation Service to the various general departmental branches, or a total of $171,620. Ordinarily funds for rent and for printing and binding are included in the Department's general estimates providing for all the bureaus, but this has not yet been done in the case of the Soil Conservation Service. Since the transfer of the Soil Conservation Service to the Department created a considerable additional burden on the Solicitor's Office, the Office of Information, the Office of Budget and Finance, and the Office of Personnel, it was necessary that these agencies have additional help to carry the increased work, and employees have been detailed from the Soil Conservation Service to these various offices for that purpose. When it becomes feasible to include funds for these purposes in the budget under the general items, the estimate for administrative expense for the Soil Conservation Service can be correspondingly reduced.

The Soil Conservation Service is operating in forty-three States through eleven regional offices, 43 State offices, 157 demonstration projects, 17 research stations, and 43 nurseries, and is furnishing technical cooperation and supervision for 454 CCC camps. Rules and procedure covering general administration, personnel, finance, purchase, and property accounting must be devised in the Washington office of the Soil Conservation Service for the field offices, and a force of traveling auditors and inspectors must be maintained in Washington for periodical check on all field activities. An adequate fiscal and procurement staff must be maintained in Washington to control financial accounts, procurement matters, and property accountability. The amount estimated for 1938 is the absolute minimum required to carry on activities under regular appropriations. It does not, however, take into consideration any work incident to the administration of WPA or ECW funds, since these expenses are paid for out of the general allotments for these particular activities.

WORK UNDER THIS APPROPRIATION

General.--The purpose of this appropriation is to provide for the salaries and expenses of employees in the Washington office engaged in general administrative and service activities. Included are the offices of the Chief, the Division of Business Management, and the Personnel and Training Division. The activities of the above units are briefly as follows:

Office of the Chief.--This includes, in addition to the immediate office of the Chief, the offices of the Associate Chief and the Assistant Chief, with their technical and administrative assistants. The Chief is the responsible administrative head of the Service and is charged with the determination of major policies in accordance with the requirements of Congress and the Secretary of Agriculture. Through the Associate Chief, the Assistant Chief, and other assistants, he directs and coordinates the work of the various branches of the Service.

Division of Personnel and Training.--This Division handles all personnel records and actions involving approximately 10,500 civil-service employees. It is also responsible for training employees for both the technical and administrative positions of the organization and for the safety and health and similar measures throughout the Service. Because of the rapid expansion of the Service, involving the establishment of new projects and numerous necessary changes in organization, a large volume of personnel actions is necessary. These involve the employment and separation of employees, promotions and reclassifications, changes in headquarters,

all matters affecting retirement and leave records, finger-print records, marital-status records, and medical examinations.

The lack of adequately trained personnel in both administrative and technical fields is being met by thorough in-service training courses, so that our employees may acquire a broad comprehensive view of the administrative problems and general objective and methods of the control of erosion. These courses consist of actual work at different jobs in the administrative sections, actual work in the field under supervision of trained staff members, and inspection of work already finished. In many instances the courses have been supplemented outside of working hours with lectures by trained specialists, in the phase of work for which the employee is being trained, reading assignments for special study, and related activities.

Due to the fact that the Service is still in the formative stage, the turnover of employees is quite large, and the shifting of employees from one position to another better suited to their qualifications and temperament creates an unusual volume of work.

This Division carries on an active accident-prevention campaign in an effort to minimize the number of accidents incident to the operation of equipment by employees of both the Soil Conservation Service and ECW. The total number of employees involved is close to 100,000. In connection with safety and health activities, regular inspections are made of equipment, operating methods, and buildings, and, in furtherance of this work, safety committees have been organized on all projects and in connection with the Service's work at all CCC camps. This Division handles employee compensation cases under the Employees' Compensation Act.

Division of Business Management.--This Division handles all business operations, including the budget, fiscal control, procurement, contracts, space, general office service activities, establishment of fiscal, purchase, and property accounting procedure for the field, and auditing in regional and project offices.

Under existing regulations field offices with three exceptions are limited to pay-roll disbursements through the Treasury State Accounts Offices and, when ECW funds are involved, through the Army Finance Offices. This necessitates the keeping of complete financial accounts and the auditing of all other vouchers in the Washington office.

It is expected that authority will be granted for the decentralization of voucher auditing and payment as rapidly as the regional offices become adequately staffed to perform this work. It already has been possible to establish three regions on this basis, but even when all regional offices are auditing and paying their own vouchers, control ledgers and accounts must still be maintained in the Washington office.

All field offices are limited to open-market purchases not to exceed $50 and to other purchases not to exceed $1,000. All specifications, invitations for bids, and leases for office, garage, and warehouse space must clear through the Washington office. Property records covering the entire Service must also be maintained in Washington.

Field equipment, highly specialized scientific equipment, automotive equipment, construction equipment, seed, seedlings, etc., must be acquired under thou-

sands of contracts initiated and awarded according to departmental and governmental laws and regulations. Contracts are not only numerous but complex, involving such matters as freight rates, computations, equalization clauses, public-utility service, and stringent service requirements. Highly technical points must be covered, in cooperation with technical divisions, in preparing specifications and invitations to bid. All this must necessarily be supervised in the Washington office.

Cooperative agreements with farmers and cooperative agreements and memoranda of understanding with governmental and outside agencies must be passed upon from a financial viewpoint.

Applications for letters patent have resulted from the activities of the Service and are handled in the Business Management Division.

All papers in connection with the acquisition of land for research stations and nurseries are prepared in the Procurement Section for final disposition by the Office of the Solicitor and the Department of Justice.

On account of the large amount of equipment used by the Service and the nature of the field work, accidents involving damage to persons and property are inevitable. The circumstances surrounding each accident is fully examined by the Business Management Division from the factual standpoint before definite recommendations are made as to the disposition of claims.

EMERGENCY FUNDS

Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
National Industrial Recovery, Interior, Soil-Erosion Prevention (transferred to Agriculture): General administrative expenses in connection with national program of soil conservation.....	$69,346	$22,070
Public Works Administration, Allotment to Interior, Soil Erosion Prevention (transferred to Department of Agriculture): General administrative expenses, national program of soil conservation.....	---	89,736
Emergency Relief Appropriation Act, 1935: General administrative expenses, national program of soil conservation.....	1,114,307	388,194
Total Emergency Funds (Direct Allotments).	1,183,653	500,000

(c) SOIL AND MOISTURE CONSERVATION AND LAND-USE INVESTIGATIONS

	Regular	Emergency	Total
Appropriation, 1937	$1,540,780	$620,050	$2,160,830
Budget Estimate, 1938	2,000,000	---	2,000,000
Net change	+ 459,220	-620,050	-160,830

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase or decrease
Obligated:				
B-1. Soil and moisture conservation investigations under controlled plot and laboratory conditions: (Erosion Experiment Stations):				
Regular	$358,240	$645,140	$985,000	+$339,860 (1)
Emergency	395,082	189,085	---	-189,085
B-2. Soil and moisture conservation investigations on entire experimental drainage units:				
Regular	124,559	500,318	510,000	+9,682 (2)
Emergency	(a)561,348	206,580	---	-206,580
B-3. Sedimentation(resulting from erosion) investigations:				
Regular	6,514	106,037	123,000	+16,963 (3)
Emergency	254,744	144,843	---	-144,843
B-4. Geographic and climatic factors related to erosion, general investigations of:				
Regular	820	89,285	100,000	+10,715 (4)
Emergency	153,664	60,314	---	-60,314
B-5. Cooperative investigations of economics of erosion and erosion control:				
Regular	305	100,000	182,000	+82,000 (5)
Emergency	6,870	13,526	---	-13,526
B-6. Cooperative investigations of erosion-resisting plants of economic value:				
Regular	---	100,000	100,000	---
Emergency	6,081	5,702	---	-5,702

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase or decrease
Total obligations:				
Regular.....	$490,438	$1,540,780	$2,000,000	+$459,220
Emergency.....	1,377,789	620,050	---	-620,050
Total.....	1,868,227	2,160,830	2,000,000	-160,830
Unobligated:				
Regular.....	131,772	---	---	---
Emergency.....	259,952	---	---	---
Total.....	391,724			
Transferred to Geological Survey (see Project B-2):				
Emergency.....	4,000	---	---	---
Total appropriation:				
Regular.....	(b)622,210	1,540,780	2,000,000	+459,220(A)
Emergency.....	1,641,741	620,050	---	-620,050
Total, All Funds.....	2,263,951	2,160,830	2,000,000	-160,830

(a) Exclusive of $4,000 transferred to Geological Survey, for assistance in operating stream gauge stations.
(b) Includes $182,210 allotted from $281,362 appropriation for "Soil-Erosion Investigations" provided in miscellaneous section of Agricultural Appropriation Act, 1936; and $440,000 of the $6,284,000 appropriation provided for "Salaries and Expenses, Soil Conservation Service" by the Supplemental Appropriation Act, 1936.

A. The increase of $459,220 in regular funds consists of:

(1) An increase of $339,860 for soil and moisture conservation investigations under controlled plot and laboratory conditions (including erosion experiment stations), as follows:

(a) $313,516 for the general investigational program. The development of the soil-conservation program has thrown a great burden upon the Research Division. There is an imperative need for data upon which to base the erosion control operations work of the Service and of other branches of the Department, and for agriculture practice of each State. Since the primary factors affecting soil erosion are climate, topography, soil type, and land use--all of which vary widely from locality to locality--it is necessary to carry on research within the general region to which the results are to be applied. To this end, erosion experiment stations have been established in important agricultural regions of the country with a view to determining the methods of erosion control and land use best adapted to each region from the standpoint of economic return as well as of conservation and improvement of the productive capacity of the soil looking to a permanent agriculture. To make possible the prosecution of this program on an adequate basis, an increase of $313,516 for direct work is needed during the fiscal year 1938. This sum will be used as follows:

$55,000 for placing old stations on an effective operating basis.

The first Federal soil-erosion experiment station was established in 1929 at Guthrie, Oklahoma, by the Bureau of Agricultural Engineering and the Bureau of Chemistry and Soils. The number of stations was gradually increased until at the time this work was transferred to the Soil Conservation Service on April 1, 1935 there was a total of 10 stations. To these were added three stations which had been established previously by the Soil Conservation Service, bringing to 13 the total number of stations operating as of April 1, 1935. These stations have never been adequately staffed and are now getting to the point where much of the equipment is becoming obsolete or worn out. It is estimated that an increase of $55,000 will be necessary to bring these stations to satisfactory operating efficiency.

$180,000 for completion and operation of recently established stations.

In order better to fulfill the need for factual erosion-control information, new erosion stations have recently been established near Athens, Georgia; Fulton, Missouri; Sussex, New Jersey; Dixon Springs, Illinois; Marcellus, New York; and Amarillo, Texas. These stations, together with the 13 older stations, together with field tests on operations projects are depended upon to furnish the basic research information necessary for the planning and conduct of field operations of the Service, as well as for other branches of the Department concerned with application of measures of soil conservation. The sites for these stations were carefully selected and the land has been procured. Some of the necessary equipment has been obtained and sufficient personnel is available to make preliminary surveys and draw up detailed plans for the experimental work. However, it will be impossible to operate these stations in an efficient manner unless sufficient funds are provided to procure additional personnel and equipment. It is estimated that the increase recommended will provide for placing the work centered at these stations in immediate operation on an efficient basis.

$30,000 for determining the efficiency of erosion-control practices and the development of designs for erosion-control structures through laboratory analyses. Laboratory investigations are sorely needed to supplement and interpret the data obtained in the field. It is possible to determine in the field the total amount of soil being lost under various cropping practices, but, unless the eroded soil is carefully analysed, it is impossible to evaluate the loss in terms of plant food and soil fertility. This is particularly important since on most soil types erosion is a selective process and the eroded material undoubtedly contains more plant food than an equivalent weight of the original soil. The efficiency of erosion-control practices cannot finally be determined until such analyses are made, and this has not been possible with present funds. There is also urgent need for specific information upon erosion-control structures of various kinds, particularly with respect to the design and testing of new types which will be less costly but nevertheless effective. There is need, too, for the development of flumes and various kinds of devices for the measurement of eroded material for the purpose both of increasing the accuracy of measurement and reducing the cost of making such measurements. It is estimated that $30,000 will be required for personnel and equipment for initiating these studies.

$11,616 for analysis and interpretation of experimental data. Once the data have been obtained, it is necessary to analyze and interpret them and place them in a form readily usable in the field. This work requires the services of trained analysts and statisticians who can not now be employed with available funds.

The project is so handicapped by lack of adequate personnel that sufficient time is not available for proper interpretation of the data being collected.

$36,900 for the establishment of new work in Colorado and Utah. The conservation of soil and water in the intermountain region, chiefly in Colorado and Utah, presents special problems in water and wind erosion and in water conservation requiring research in that region, particularly on irrigated and dry-farming lands and other potential farming lands. While some results of investigations on similar types of land in New Mexico and Arizona may be applicable, climatic, soil, and land-utilization practices vary sufficiently to require specialized research for the highly productive agriculture of this intermountain region.

(b) $26,344, being part of a total increase of $39,357 to place the Office of Chief of Research and field supervision of research activities on an effective basis. The total increase of $39,357 for this purpose is distributed among several projects, as shown under the following paragraph heads:

(1-b)	-	$26,344
(2-b)	-	3,322
(3-b)	-	1,274
(4-b)	-	2,250
(5-b)	-	6,167
Total	-	39,357

This $39,357 increase will provide for the salaries and traveling expenses of personnel needed to place the Office of the Chief of the Division of Research on an effective operating basis and to finance field supervisory activities. These needed additions include personnel in Washington to evaluate the adequacy of projects developed by different research sections in cooperation with the States and field personnel to adapt the research program to the needs of the Service.

(2) An increase of $9,682 for soil and moisture conservation investigations on entire experimental drainage units, as follows:

(a) $6,360 for the general investigational program. This amount will make possible the establishment of another unit in the organization for the purpose of planning and supervising erosion-control and land-use practices to be put into effect on the experimental watersheds on all the field projects. One of the most important phases of the work on these experimental watersheds is to determine the relative effect of various erosion-control and land-use practices upon run-off and flood flows. It is necessary that personnel of special training and experience be employed to supervise this phase of the work, which requires a knowledge of agronomy and agricultural engineering not represented elsewhere in the organization of the section. The personnel for this unit will consist of one senior agricultural engineer, one agronomist, one junior agricultural engineer, and one junior clerk-stenographer.

(b) $3,322 for prorata portion of increase for Office of Chief of Research and field supervisory activities, referred to in note 1-b, above.

(3) An increase of $16,963 for investigation of sedimentation resulting from erosion, as follows:

(a) $15,689 for the general investigational program, including:

$10,000 for work at the Cooperative Hydraulic Laboratory of the California Institute of Technology involving the experimental determination of hydrodynamic principles relating to erosion of river banks and channels and the deposition of silt, standardization of erosion-and water-control structures, and development of special-purpose instruments for use in hydrodynamic investigations. The development of such fundamental hydrodynamic information is of great importance in planning and applying measures for the control of river, channel, and bank erosion and for the protection of reservoirs, channels, and lower-lying lands from siltation. Such work can not be carried out economically and with a maximum effectiveness without the additional fundamental information to be obtained under this project.

$5,689 to expand activities in determining the extent and nature of erosional silt deposition in streams and on valley lands and in studying the qualities of the sediment being deposited. Through studies of the extent and nature of such depositions the Soil Conservation Service is developing methods for controlling this process, not only at the head waters but also at the point of deposition. For such control measures, it is just as important to know the quality of silt being deposited as it is to know where the deposit is occurring. Furthermore, a knowledge of the extent of deposition and its character makes it possible to measure the damage caused by erosion on watershed areas and serves as a useful guide in determining additional justification for watershed soil-conservation and flood-control work.

(b) $1,274 for prorata portion of increase for Office of Chief of Research and field supervisory activities, referred to in note 1-b, above.

(4) An increase of $10,715 for studies of the geographic and climatic factors related to erosion, as follows:

(a) $8,465 for initiating plant ecological research work. This study involves the problems of plant succession in relation to erosional processes as an index of erosion and the effectiveness of erosion-control measures. Since vegetation probably expresses the totality of environment better than any recording device that will ever be developed, changes in plant cover reflect the degree of erosion which has occurred and the effectiveness of rainfall and the efficiency of erosion-control techniques employed. Frequently erosion control requires the restoration of the natural plant cover on areas ruined by erosion (e.g., the reestablishment of natural vegetation in the Piedmont and in the Great Plains). Spontaneous recovery proceeds slowly through a definite series of plant successions. Knowledge of such succession in relation to erosion control and moisture conservation under different environmental conditions is necessary as a condition for developing the most economical and practical methods of controlling erosion through an artificial restoration of a plant cover in the various climatic regions of the United States.

(b) $2,250 for prorata portion of increase for Office of Chief of Research and field supervisory activities, referred to in note 1-b, above.

(5) An increase of $82,000 for cooperative investigations of the economics of erosion and erosion control, as follows:

(a) $75,833 for the general investigational program. During 1937 studies of the economics of soil conservation are being conducted in 16 of the 43 States now having soil-conservation demonstration areas. The problems in the other 27

States will need similar study in order to determine the economic feasibility of this type of endeavor. The conclusions reached in the first 16 States in many cases will not apply in other States because of differences in soil, slope, climate, and economic background, as well as differences in the biological and social forces inducing the type of farming, erosion, and the economic consequences thereof. The increase requested will provide for an extension of the work to the States not yet studied, for an expansion of the studies already inaugurated in terms of refinement of details, and for improving the technique of treatment with respect to studies already under way. Such an expansion of work is necessitated by the many demands for this type of research. Officials of the State agricultural experiment stations, leaders and workers in other agencies, and officials of the Soil Conservation Service, Division of Operations, are requesting information and assistance on these subjects which can not be supplied with present funds.

The proposed expanded studies are necessary in order to determine the economic interrelationships between soil erosion and farm abandonment, lowered standards of living of agricultural and urban populations, financial and human losses involved in the destruction of reservoirs by siltation, decreases in the value of land collateral of farm mortgages, and similar phenomena affecting the economic status of both the individual and society. The studies are also necessary in order to determine the economic limitations of the various types and combinations of measures for the control of erosion and floods and of principles relating to the benefits arising from soil- and moisture-conservation operations as a basis for the equitable distribution of the cost of work.

(b) $6,167 for prorata portion of increase for Office of Chief of Research and field supervisory activities, referred to in note 1-b, above.

WORK UNDER THIS APPROPRIATION

General.--The continuing productivity of agricultural lands is dependent upon their wise use and upon the application of effective measures of soil and moisture conservation. The development and refinement of such measures are, in turn, dependent upon exhaustive study and investigation. The program of soil conservation undertaken by the Soil Conservation Service, in accordance with the policy of Congress as expressed in the Act of April 27, 1935, involves a series of complex problems arising out of the diversity of factors which enter into the development and application of effective measures for erosion control. In order to insure the effectiveness of erosion prevention and control measures and to make possible the most judicious expenditure of Federal, State, and private funds employed for soil conservation purposes, investigations and research are necessary. The program of investigations contemplates the collection and progressive development of information regarding the character and causes of erosion and the methods of soil and moisture conservation. Such investigations will reduce the cost and increase the economy and effectiveness of the measures to be applied under the national program of soil and moisture conservation. The work under this appropriation is carried out under six financial projects, as follows:

B-1. Soil and Moisture Conservation Investigations Under Controlled Plot and Laboratory Conditions (including erosion experiment stations).--This project involves three closely related fields of study, as follows:

(1) The determination of factors which influence the rate of erosion and the percentage of run-off, such determination to be made on the basis of quantitative

measurements under carefully controlled experimental plot conditions and with carefully calibrated equipment developed especially for that purpose. Results obtained will make it possible to isolate and evaluate the variables involved in the processes of soil erosion and moisture wastage. This information will furnish a basis for experimentation with control methods under actual field conditions and is essential in designing and adapting new and established measures of control.

(2) The development and refinement of techniques involved in the application of engineering, agronomic, and other methods of soil and water conservation, with particular emphasis upon the development of those methods which can be applied by farmers without the use of expensive machinery and material. Among the typical problems to be studied are crop rotations; spacing and the width of strip crops under varying conditions; development and use of permanent vegetative contour strips; the most economical design, spacing, and construction of broad-based terraces; vegetative and engineering methods for controlling gullies; and the prevention of wind erosion by listing, strip cropping, use of crop residues, and similar measures. Investigations of these and related problems as field tests on operations projects and at experiment stations are expected to effect great economies in soil and moisture conservation and will provide a basis for permanent practices on the various types of agricultural lands.

(3) Determination of factors influencing the rate at which topsoil, or its equivalent in fertility, is created under natural conditions or by artificial methods of land treatment. Without information regarding these factors, it is impossible to ascertain whether or not proposed soil-conservation measures are adequate to maintain a permanent equilibrium between losses in fertility due to erosion and the creation of new fertility by natural forces or artificial measures. Such information is likewise essential in determining methods for the practical and economical restoration of fertility to land already depleted by erosion. This particular field is largely unexplored and offers wide opportunity for the development of measures for the rehabilitation of waste areas.

B-2. Soil and Moisture Conservation Investigations on Entire Experimental Drainage Units.--The work under this project involves the conduct of investigations on a watershed basis for the purpose of determining (1) the effects of erosion-control and land-use practices on floods, (2) the rate and amount of run-off and eroded soil material from watershed areas under various conditions of treatment in order to secure information essential to the economic design of erosion-control and flood-control structures, and (3) the effects of erosion-control and land-use practices on the conservation of surface and underground water supplies and the low water flow of streams.

These studies are conducted on watersheds which vary in size in accordance with types of use for farm lands. The area will be approximately 5,000 acres. Detailed investigations are made of the action of water from the time it reaches the ground as precipitation until it leaves the watersheds as surface or underground flow. Determinations are made of physical characteristics of watersheds that affect run-off and flood flow, such as soil, topography, shape, physiography, vegetative cover, surface and underground storage, tillage methods, and erosion-control practices. The complex relationship of these various factors in their influence upon run-off and flood flow requires a careful study of them on complete watersheds, since smaller areas such as plots do not possess all the physical characteristics that must be evaluated in order to determine accurately their effect upon run-off and flood flow.

While it is generally agreed that the rate of run-off and eroded material per unit of area from a watershed decreases with the size of the watershed, very few data to substantiate this general knowledge have been collected. This information is needed for the safe and economic design of all erosion-control and flood-control structures. In order to determine accurately these variations in rates and amounts, run-off data must be collected from watersheds of various sizes and characteristics, and a detailed study must be made including the distribution and frequency of rains of different amounts and intensities.

B-3. Investigations of Sedimentation Resulting from Erosion.--Erosion not only destroys the soil of uplands but its wash-off products also interfere with the orderly use of water resources. Vast amounts of infertile silt, sand, and gravel are annually washed from eroding areas and deposited in stream channels and reservoirs and over fertile valley lands. The resulting accumulations seriously damage valley soils and water-supply, water-power, irrigation, drainage, flood-control, and navigation developments. Siltation of reservoirs threatens the permanent use of irrigated lands, the water supply of towns and power developments, and the social security of dependent populations. Valuable agricultural lands may become subject to abandonment because of flood-deposited products of erosion. Siltation of navigable channels necessitates large annual expenditures for dredging and has resulted in the abandonment of many waterways for navigation.

The purpose of these investigations is to determine the extent to which siltation has already damaged or threatens to damage agricultural, irrigation, and water-supply developments and the fundamental hydrodynamic laws relating to the transportation of silt by moving waters and the erosion of river banks and channels. Through the development of this information it will be possible to plan adequately for the control of siltation and river erosion. The work under this project breaks down into four principal categories, as described below:

(1) Surveys of the Siltation of Reservoirs and Channels.--The rate of siltation of reservoirs and stream channels constitutes a rough measure of the rate of erosion upon the watershed concerned and increases proportionately with the severity of erosion. Information is obtained through field measurements as to the extent to which reservoirs and channels have been silted up and the rate at which such siltation is progressing. This information is useful in determining the extent to which the application of soil-conservation measures to watershed areas can be justified at Federal expense and in the public interest in order to protect channels and reservoirs from siltation. The information also makes possible accurate estimates of the probable life of the reservoirs concerned.

(2) Determination of the Extent and Nature of Erosional Silt Deposition on Low-Lying Lands and in Streams.--One measure of the damage caused by erosion is the extent of impairment of lower-lying agricultural lands and stream channels, caused by the deposition of infertile products of erosion. Studies of the extent and character of such depositions are necessary in developing methods for controlling this evil, not only at the head waters but also at the point of deposition, thereby protecting valuable agricultural lands and navigable channels. From a measurement of the extent of this process determinations are also being made regarding the public interest in the control of erosion on the watersheds concerned.

(3) Determination of the Amount and Character of Erosional Waste Transported as Bedload by Natural Streams.--Present knowledge of the amount of erosional waste transported by natural streams is inadequate to permit accurate pre-

diction as to the life of new reservoirs and accurate determinations as to the amount of silt being transported by a given stream through measurement. Through the maintenance of a series of stations on representative streams, at which accurate determinations will be made of the bedload transported under various conditions of normal and flood flow, a basis is being laid for the determination of factors for the computation of siltation rates. A knowledge of these factors is essential to insure the economical construction not only of large reservoirs but also of the smaller types of works involved in "upstream engineering" and soil-conservation work on watershed areas.

(4) Laboratory Investigations of the Principles Covering the Dynamics of Silt-Laden Waters.-- On many rivers the erosion and scouring of river banks and channels constitutes a serious problem, especially in watersheds where run-off has been accelerated through the excessive erosion of upstream areas. Particularly is this true of the arroyo cutting in the alluvial valley plains of the West. As the result of increased flood flows, serious erosion occurs not only on the bottom of the river channel but also through the cutting away of river banks, resulting directly in the destruction of large areas of valuable agricultural land and in the deposition of the removed soils in lower-lying reservoirs and channels. Present knowledge of the principles underlying such river channel and bank erosion is inadequate for the application of effective and economical control measures. The purpose of these studies is to develop fundamental information needed in the planning and application of such measures.

B-4. Investigations of the Geographic and Climatic Factors Related to Erosion.--This work involves an analysis of the processes of erosion as related to natural environment expressed in terms of climate, land forms, and plant cover; the way in which normal erosion has been accelerated by various types of land use; and quantitative measures of the amount and rate of the accelerated erosion that has occurred. Methods of controlling erosion are not universally applicable to all environments. For example, control measures successful in the Piedmont may fail completely or even prove harmful if applied in the Southwest. A study of the natural environment as a totality and the normal erosion processes associated with each type of environment will prevent error, forestall a great deal of expensive and unnecessary experimentation, and permit the development of effective control methods within minimum time limits. Typical information permitting such savings relates to the geologic norm of erosion. This is the rate at which erosion inevitably progresses under undisturbed natural conditions. To reduce man-made erosion to this natural minimum usually represents the maximum that can be accomplished with a reasonable expenditure of funds. To attempt to go further would be inordinately expensive and for this reason a knowledge of the geologic norm of erosion makes possible the establishment of attainable objectives on soil and water conservation projects. Studies under this project fall into four general classifications:

(1) Climatic Research.--Climatic conditions determine not only the distribution of soil types and vegetation but also the processes and rate of soil erosion. For this reason studies are being made to determine with the greatest possible accuracy the climatic regions of the United States; climatic risks, such as drought or excessive rainfall, and the frequency of their recurrence in different sections of the country; and areal distribution and quantitative measures of climatic causes of soil wastage. This work does not duplicate nor infringe upon the work of the Weather Bureau but is supplemental to their studies.

(2) Physiographic Research.--Field studies of the geological processes involved in erosion in various climatic regions of the country are essential in order to develop criteria for a rapid diagnosis of the stage of erosion and for estimating the effectiveness of various control measures. Such information should be made available to the Division of Operations as soon as possible. Eventually an "erosion province" map for the entire United States will be prepared, showing the areal distribution of various erosion processes such as gullying, sheet wash, and mass movement in relation to climate and vegetation and on the basis of soil and topographic provinces, as well as the character of the bedrock. Such a map will aid in forecasting erosion hazards as well as in diagnosing present conditions.

(3) Ecological Research.--Since vegetation probably expresses the totality of environment better than any recording device that will ever be developed, changes in plant cover reflect the degree of erosion which has occurred and the effectiveness of rainfall and the efficiency of erosion-control techniques employed. Frequently erosion control requires the restoration of the natural plant cover (e.g., the reestablishment of the grass cover in the Great Plains). Spontaneous recovery proceeds slowly through a definite series of plant successions. Knowledge of such successions in their relationship to erosion control under different environmental conditions is necessary before it is possible to develop economical and practical methods of controlling erosion through an artificial restoration of the natural plant cover in the various climatic regions of the United States.

(4) Erosion History.-- In order to determine quantitatively the extent and rate of man-induced erosion, it is necessary to trace the history of land utilization in relation to changes that have occurred. This investigation will be accompanied by research concerning erosion-control measures that have been used in the past in regions now suffering from serious erosion. By utilizing results of past experiences, whether successful or otherwise, the amount of current experimentation necessary to develop successful methods of controlling erosion can be materially reduced.

B-5. Cooperative Investigations of the Economics of Erosion and Erosion Control.--The work under this project is designed to determine (1) the economic interrelationships between soil erosion and resulting moisture wastage and (2) farm abandonment, lowered standards of living of agricultural and urban populations, financial and human losses incident to the destruction of reservoirs by siltation, decreases in the value of land collateral of farm mortgages, and similar phenomena affecting the economic status of both the individual and society. The studies also will determine the economic effects and limitations of various types and combinations of erosion and upstream flood-control measures.

One phase of the studies is carried on through the analysis of data obtained on demonstration projects of the Soil Conservation Service relative to the effect which applied measures have actually had on the cooperating farmers and communities, to the end of determining the extent and degree to which the economic status of these groups has been affected. The other phase of these studies deals with the collection and analysis of relevant data from available sources for the purpose of determining the economic limitations on the application of soil-conservation measures to all lands in need of treatment, so that the program as developed will be beneficial rather than harmful from an economic point of view. Also, as a part of these studies, investigations are being made of principles relating to the determination of benefits arising from soil and moisture conservation operations as a basis for the equitable distribution of the cost of the control work to be carried out.

In brief, economic studies form a necessary part of the soil-conservation program, since in the application of soil-conservation measures to all lands in the United States important economic changes necessarily will be involved. It is essential that the program be so worked out that these changes may be beneficial in nature and practicable of accomplishment.

B-6. Cooperative Investigations of Erosion-Resisting Plants of Economic Value.--The work to be done under this project involves investigations in cooperation with the Bureau of Plant Industry and other Departmental agencies to develop methods whereby erosion-control vegetation giving a high economic return can be used in the control of erosion on sloping land. One of the urgent problems encountered in controlling erosion is the necessity for retiring an extensive acreage from clean-tilled cultivation and planting it to such crops as trees, shrubs, and perennial growth. The change in land use frequently may deprive the land owner of immediate cash income essential to his economic independence. On a large percentage of farms such retirement of land from usual cropping uses will result in reducing the income of the farmer. The greater the reduction in income the greater is the owner's reluctance to adopt soil-conserving practices. Hence control measures that furnish immediate cash income and maintain the farmer's economic independence are essential to the success of the national program of erosion control.

The purpose of these investigations is to seek out cover crops of shrubs, specialty woods, nuts, fruits, and other erosion-resisting vegetation yielding food crops, commercially salable oil, waxes, drugs, tannin, and similar byproducts of the farm which will furnish an annual cash return to the owner of the land. Through these studies it is planned to develop methods of using steep erodible lands in a manner which not only will control erosion but also yield a comparatively quick and substantial profit to the land owner. In this way farmers otherwise unable to afford proper measures for the control of erosion on their land may find erosion-control measures profitable, thus more firmly establishing and assuring cooperation in a national program of erosion control.

The growing of improved erosion-control plants for production of specialty crops on steep slopes and erodible lands under scientific management methods has been profitably developed in the Dutch East Indies under the name of "hill culture". This name has been proposed here because it conveniently and aptly describes the purpose of investigations designed to develop superior strains of erosion-control plants and to foster their better economic use as an aid to the conservation of sloping and erodible lands through effective and profitable management of vegetative covers.

EMERGENCY FUNDS

Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
National Industrial Recovery, Interior, Soil Erosion Prevention (transferred to Agriculture):		
B-1. Soil and moisture conservation investigations under controlled plot and laboratory conditions.....	$4,071	---

EMERGENCY FUNDS - Continued.

Direct Allotments - Continued.

Projects	Obligated, 1936	Estimated obligations, 1937
B-2. Soil and moisture conservation investigations on entire experimental drainage units	$2,275	---
B-3. Investigations of sedimentation resulting from erosion	4,668	---
B-4. Investigations of geographic and climatic factors related to erosion	1,805	---
Total, N.I.R. Funds	12,819	---
Public Works Administration, Allotment to Interior, Soil Erosion Prevention (transferred to Agriculture):		
B-2. Soil and moisture conservation investigations on entire experimental drainage units	72,000	---
Emergency Relief Appropriation Act, 1935 (Administrative Expenses):		
B-1. Soil and moisture conservation investigations under controlled plot and laboratory conditions	133,137	$18,960
B-2. Soil and moisture conservation investigations on entire experimental drainage units	111,223	9,422
B-3. Investigations of sedimentation resulting from erosion	65,635	---
B-4. Investigations of geographic and climatic factors related to erosion	60,855	2,464
B-5. Cooperative investigations of economics of erosion and erosion control	6,870	---
B-6. Cooperative investigations of erosion-resisting plants of economic value	4,639	---
Total, Emergency Relief, 1935 (Administrative Expenses)	382,359	30,846
Emergency Relief Appropriation Act, 1935 (for national program of soil conservation):		
B-1. Soil and moisture conservation investigations under controlled plot and laboratory conditions	257,874	170,125
B-2. Soil and moisture conservation investigations on entire experimental drainage units	375,850	157,158
B-3. Investigations of sedimentation resulting from erosion	184,441	112,663
B-4. Investigations of geographic and climatic factors related to erosion	91,004	52,850

EMERGENCY FUNDS - Continued.

Direct Allotments - Continued.

Projects	Obligated, 1936	Estimated obligations, 1937
B-5. Cooperative investigations of economics of erosion and erosion control.....	-----	$13,526
B-6. Cooperative investigations of erosion-resisting plants of economic value.....	$1,442	5,702
Total, Emergency Relief, 1935(national program of soil conservation).....	910,611	512,024
Total, Emergency Relief Appropriation Act, 1935 (all).....	1,292,970	542,870
Emergency Relief Appropriation Act, 1936 (national program of soil conservation):		
B-2. Soil and moisture conservation investigations on entire experimental drainage units.....	-----	40,000
B-3. Investigations of sedimentation resulting from erosion.....	-----	32,180
B-4. Investigations of geographic and climatic factors related to erosion.....	-----	5,000
Total, Emergency Relief, 1936....	-----	77,180
Total, Emergency Funds (Direct Allotments).....	1,377,789	620,050

(d) SOIL AND MOISTURE CONSERVATION OPERATIONS, DEMONSTRATIONS, AND INFORMATION

	Regular	Emergency	Total
Appropriation, 1937.....	$22,853,485	$7,446,403	$30,299,888
Budget Estimate, 1938.....	22,225,000	---	22,225,000
Net change.....	-628,485	-7,446,403	-8,074,888

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Decrease
Obligated:				
C-1. Conservation surveys to determine the extent and distribution of erosion:				
Regular.....	$473,482	$660,624	$630,624	-$30,000(1)
Emergency.....	(a) 804,423	216,627	---	-216,627

Projects	1936	1937 (Estimated)	1938 (Estimated)	Decrease
Obligated - Continued.				
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions:				
Regular.....	$2,915,265	$14,674,410	$14,274,410	-$400,000 (1)
Emergency.....	16,096,367	3,261,949	---	-3,261,949
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government:				
Regular.....	(b) 889,954	(f)3,754,657	3,686,357	-68,300 (1)
Emergency.....	3,695,002	448,393	---	-448,393
C-4. Soil and moisture conservation operations (Federal aid) in cooperation with conservation districts established under State laws:				
Regular.....	---	581,084	581,084	---
Emergency.....	---	---	---	---
C-5. Operation of erosion nurseries for the propagation of plants for use in soil and moisture-conservation operations:				
Regular.....	736,230	1,383,738	1,335,253	-48,485 (1)
Emergency.....	500,847	197,480	---	-197,480
C-6. Technical cooperation with Emergency Conservation Work(C.C.C.) camps and other Federal and State agencies:.....				
Regular.....	(c)532,806	1,717,272	1,717,272	---
Emergency.....	(d)458,299	336,954	---	-336,954
Drought relief projects (Emergency funds only)....	---	2,985,000	---	-2,985,000
Total obligations:				
Regular.....	5,547,737	22,771,785	22,225,000	-546,785
Emergency.....	21,554,938	7,446,403	---	-7,446,403
Total.....	27,102,675	30,218,188	22,225,000	-8,074,888

Projects	1936	1937 (Estimated)	1938 (Estimated)	Decrease
Unobligated:				
Regular.....	$746,198	-----	-----	-----
Emergency.....	2,225,419	-----	-----	-----
Total.....	2,971,617	-----	-----	-----
Transferred to other agencies:				
Regular (see Projects C-3 and C-6).....	33,263	81,700	-----	(g)-81,700(1)
Emergency(see Projects C-1 and C-6).....	25,555	-----	-----	-----
Total.....	58,818	81,700	-----	-81,700(1)
Total appropriation:				
Regular.....	(e)6,327,198	22,853,485	22,225,000	-628,485(1)
Emergency.....	23,805,912	7,446,403	-----	-7,446,403
Total,All Funds	30,133,110	30,299,888	22,225,000	-8,074,888

(a) Exclusive of $555 transferred to "Contingent Expense", Department of the Interior.
(b) Exclusive of $22,300 transferred to Coast and Geodetic Survey for installation of controls for aerial survey.
(c) Exclusive of $10,963 transferred to Coast and Geodetic Survey for installation of controls for aerial survey.
(d) Exclusive of $25,000 transferred to Coast and Geodetic Survey for installation of controls for aerial survey.
(e) Includes $483,198 provided under appropriation "Plant Reserve Stations" to Bureau of Plant Industry by Agricultural Appropriation Act, 1936, and transferred to Soil Conservation Service; and $5,844,000 of the $6,284,000 appropriation for "Salaries and Expenses, Soil Conservation Service" provided by the Supplemental Appropriation Act, 1936.
(f) Exclusive of $81,700 transferred to Coast and Geodetic Survey for installation of controls for aerial survey.
(g) Reduction applicable to Project C-3 (making total decrease of $150,000 for that project).

(1) There is a reduction of $628,485 in regular funds for this activity in 1938 (from $22,853,485 in 1937 to $22,225,000 for 1938). Emergency funds applied to this work in 1937 amounted to $7,446,403, so that the actual reduction in total working funds for 1938 will be $8,074,888. This reduction has been allocated to individual projects as indicated in the foregoing Project Statement.

WORK UNDER THIS APPROPRIATION

General.--This work includes the operations of the Soil Conservation Service which involve the actual location, prevention, and control of soil erosion and the conservation of water, as distinguished from investigations into the causes of erosion and the laboratory development of control methods. The work progresses toward soil and water conservation on the land itself through an integrated plan of procedure involving a variety of methods and types of activity, consisting of erosion surveys, the operation of erosion-control demonstration projects, the integrated treatment of watersheds largely composed of Government owned or controlled

land, Federal-aid cooperation with conservancy districts, the operation of conservation nurseries, and the furnishing of technical assistance to other Federal and non-Federal agencies in order to coordinate all soil-conservation efforts.

Included as an integral part of the above activities, a program is carried forward for the dissemination of information and educational material pertaining to soil and water conservation and the various related phases of work carried on by the Soil Conservation Service. Hundreds of thousands of farmers and scientists, as well as others, must depend on printed material for information as to the need for conserving national soil and water resources and for knowledge of the recommended methods available for meeting this need. The ultimate effectiveness of research and operations in the field of soil and water conservation depends almost entirely on the manner in which new developments, techniques, and improvements in method are brought to the attention of those who can put them to practical use. For these reasons, the preparation, publication, and distribution of Farmers' Bulletins, technical bulletins, and similar material and the organization of farm tours through demonstration and research areas are highly necessary. Likewise, if the work of the Service is to have a maximum demonstrational and educational value, farmers and other interested individuals must be apprised of the location of demonstration project areas and the significance of the work being done. Information and educational work is carried on through the Department of Agriculture, in close cooperation with agricultural colleges, State agricultural extension services and experiment stations, and all other Federal, State, and local organizations interested in erosion-control work.

The activities under this appropriation are carried out under the following projects:

C-1. Conservation Surveys to Determine the Extent and Distribution of Erosion.--This project involves the preparation of conservation surveys to determine the extent and distribution of erosion in the United States and in individual States and counties as the basis for adequate planning of the national program of soil and moisture conservation. These surveys are essential to the development of the program of the Soil Conservation Service and to the adjustment of the program geographically so as to distribute equitably among those regions most in need of erosion-control treatment the benefits of the work to be undertaken. The surveys will also be of great value to other Federal agencies and to State planning boards, agricultural colleges, and other institutions concerned with the agricultural welfare of the United States.

The task involves extensive field survey work, the making of necessary aerial surveys, and the maintenance of adequate facilities for the compilation of soil-erosion data in map form for publication. Not included under this project is the extensive detail erosion-survey work carried out on individual farms in the preparation of working plans for soil and moisture conservation operations on demonstration and work projects, since these costs are more properly chargeable against project expenditures. Neither is there included under this project such survey work as may be involved in furnishing technical supervision for the erosion-control work of other agencies.

The need for work under this project lies in the meagerness of accurate information as to the distribution and extent of erosion in the United States. While it is true that the reconnaissance survey made for the National Resources Committee during the fiscal year 1935 gives a general picture of the problem, much more de-

tailed study and information is necessary in order to define the seriousness of erosion in terms of individual small watersheds and areas. Since this is essential in locating and establishing projects on a basis of the true physical and economic factors involved, the work must be done prior to the application of adequate measures for control.

An accurate mapping and evaluation of the extent and severity of soil erosion is essential in developing plans for a national program of control, since the amount and character of work required in a given locality will depend upon the nature and seriousness of the problem in that locality. Fundamental information regarding the distribution of erosion in its varying degrees of severity is exceedingly meager. The reconnaissance survey made for the National Resources Committee in the fiscal year 1935 provides only a general national picture of the problem. In order to define the seriousness of erosion in small watersheds and other areas, in contemplation of conservation work, much more detailed information must be made available. If work projects are to be established on the basis of land conditions and actual need, such information must also be utilized not only in locating projects but in planning the nature of the work to be undertaken.

C-2. Soil and Moisture Conservation Operations by Means of Demonstration Projects in Agricultural and Erosion Regions.--Operations under this project involve the conduct of erosion-control demonstrations, largely on privately-owned agricultural land, for the purpose of providing farmers of a general region with visual demonstrations of practical, effective soil and moisture conservation measures. Each demonstration project involves the application of an integrated plan of erosion control, in most cases over an entire drainage area or other natural unit. In cooperation with individual land owners within the selected area, adaptable vegetative and engineering methods of erosion control and moisture conservation are applied according to the peculiar requirements of each parcel of land. Vegetative methods are used with a view to reestablishing the nearest possible approximation of natural control conditions and include the restoration of range and pasture grasses, the use of strip cropping, the establishment of proper crop rotations, the planting of vines, shrubs, and trees as protective cover for the land and for wildlife populations, the retirement of excessively eroded and erodible land from cultivation, and the introduction of proper woodland management methods. Engineering methods are used largely to supplement vegetative controls and include the construction of check-dams to control gully erosion, contour-furrowing of pastures, terracing of cultivated fields, construction of diversion ditches and dams, contour listing of windblown fields, and other measures of a similar nature. The integration of adaptable vegetative and engineering methods into a unified, coordinated program provides a complete land-use plan for the area on which the demonstration is being carried out.

Work under this project is carried out cooperatively with the owners of the land under agreements which are binding for a period of five years. Under these agreements the land owner undertakes to modify his land-use practices in accordance with plans prepared by the Soil Conservation Service, to contribute labor, materials, and equipment, and to maintain the recommended conservation practices for a period of five years. As its part of the cooperative agreement, the Government undertakes to furnish the necessary plans and supervision and certain supplemental material, labor, and equipment. It is estimated that the average contribution of the cooperating land owner is equal or more than equal to the contribution made by the Government in the form of labor, equipment, and materials.

C-3. Soil and Moisture Conservation Operations on Watersheds Largely Owned or Controlled by the Government.--Operations under this project involve soil and moisture conservation operations on large watershed areas composed in major part of Federally owned or controlled land (public domain, forest lands, Indian reservations, parks, and other Federal reserves). In these areas, where the Federal Government is responsible for the application of proper-land-conservation measures, the most effective and economical procedure is to go ahead immediately with a control program, since delay may permit the development of erosion to the point where the cost of effective control becomes prohibitive.

These areas, largely under Federal control, have long been subject to severe overgrazing which has resulted in the denudation of natural vegetation, the prevention of reproduction in certain forest and formerly grassed areas, an exceedingly serious acceleration of erosion, and the formation of destructive floods carrying large quantities of silt. This process has upset the balance between rainfall, vegetation, and the run-off, infiltration, and underground storage of water. Perennial streams, formerly not subject to destructive floods, have been transformed into eroded washes, alternately dry and filled to the brim with flash floods. Irrigated lands in the lower reaches of watersheds are subjected alternately to lack of water and destruction through bank and new channel cutting of meandering currents. Large irrigation projects are threatened with relatively early abandonment due to siltation of reservoirs and irrigation canals. Areas formerly made productive by flood-water irrigation methods are being progressively abandoned due to back-cutting of gullies and denudation of local watersheds. Grazing values of range lands are declining to the point where the virtual extinction of the economic use of large livestock areas is imminent. As a consequence, the permanent habitability of large portions of the areas concerned is threatened and large Federal and private investments in irrigation reservoirs and values dependent thereon are likewise menaced.

The plan of operation on these projects contemplates the restoration of natural balances through the following procedure: (1) The preparation of a comprehensive and integrated plan and method of procedure for each watershed, based upon comprehensive surveys of range-carrying capacities, erosion, topographic, and soil conditions, climatological data, natural water supply, and necessary readjustments in methods of land use based upon existing population distribution and economic conditions as related to the physical factors involved. Such plans are being integrated with those of other agencies responsible for the administration of parts of such watersheds. (2) The application of control measures such as the prevention of over-grazing; artificial revegetation of denuded areas; damming of gullies; the spreading of water from eroding gullies and washes to neighboring lands to make possible (a) stabilization and refilling of gullies and (b) increase in erosion-resisting vegetation on lands thus provided with increased water supply; the introduction of improved methods of flood-water farming to make possible the existence of native populations which would be asked to reduce their livestock as an important measure of range rehabilitation; the rebuilding of areas destroyed by bank-cutting of meandering waterways and the protection of neighboring lands through planting of vegetation in the bottoms of destructive washes; contour and basin furrowing of certain areas; and the encouragement of forest reproduction.

C-4. Soil and Moisture Conservation Operations (Federal Aid) in Cooperation with Conservation Districts Established Under State Laws.--Operations under this project involve the furnishing of assistance on a cost-sharing basis to soil and moisture conservation districts organized and operated in accordance with basic

State laws. This assistance is in the nature of technical services, materials, use of equipment, and funds as determined by circumstances in each case and is conditional on equitable contributions on the part of the States and districts concerned. The development of operations through such districts is a major part of the permanent approach to soil conservation on a national basis.

The operation of demonstration soil-conservation projects has heretofore constituted the chief activity of the Soil Conservation Service. Demonstration projects are necessary as a continuing activity, but soil-conservation problems can not be entirely solved by work in selected typical areas. The extension of demonstration projects to cover all land needing treatment would involve costs prohibitive to the Federal Government. It is planned, therefore, ultimately to shift the emphasis from demonstration projects and secure adoption of the appropriate measures and practices on lands outside demonstration areas through cooperation with soil-conservation districts authorized by State law and operated largely through State and local financing but with equitable contributions from the Federal Government. Such contributions will be governed by fulfillment of certain requirements set up by the Federal Government, including the extent of State and local aid, the maintenance of applied measures and practices, and such other requirements regarding land use as will insure the permanence of the applied measures.

Where districts are established with the appropriate powers and resources with which to operate, the Federal Government will render certain assistance in technical services, materials, equipment, and funds in a manner somewhat similar to (a) the basis on which Federal-aid highways are constructed; or (b) the basis on which the States and the Federal Government cooperate under the Clark-McNary Act for the protection of forests from fire.

The first project for cooperation of the Soil Conservation Service with soil-conservation districts has been initiated in cooperation with county wind-erosion conservation districts organized in nine Texas Panhandle counties under the provisions of a statute enacted by the State legislature in 1935. Refunds of State ad valorem taxes collected within the counties and transfers of (1) automobile license-fee collections and (2) special road and bridge levies constitute the resources of the several districts. The statute authorizes the districts to perform work on abandoned and neglected lands and assess the costs thereof to the lands if necessary to prevent the spread of soil erosion and damage to other lands within the districts. The Soil Conservation Service is furnishing technical services, lending equipment, and providing the plants and seeds of permanent vegetation for use in the execution of the district's program for preventing and controlling wind erosion.

B-5. Operation of Erosion Nurseries for the Propagation of Plants for Use in Soil and Moisture Conservation Operations.--Operations under this project contemplate the establishment and maintenance of an adequate number of permanet nurseries for the purpose of assembling and producing native and immigrant plants valuable for erosion control. These plants will be used on the various control projects of the Soil Conservation Service. This work is essential in order that the various demonstrations and other projects of the Soil Conservation Service may be supplied with adaptable planting stock adequate to effect control of erosion.

The program includes the collection and use of the rarer species of plants and their seeds and the quantity collection and production of those species which

occur abundantly. There is acute need for the establishment of vegetation on thousands of acres of abandoned land. Because of climatic conditions and soil variations, the number of useful species of grasses is quite limited. Due to overgrazing and other factors in wide areas of the Great Plains region, the grasses have in recent years been almost totally destroyed. Reseeding and proper crop management are urgently needed in those areas to prevent them from becoming sources of dust storms. All species of promising native grasses and other vegetation from the dry-land areas are being brought together in the nurseries for propagation. Species of grasses introduced by the Bureau of Plant Industry from foreign countries will also be grown in the nurseries. These plants are classified as to their drought resistance, soil adaptability, rates of seeding, proper mixtures, requisite cultural methods, feed values, and ecological characteristics as a basis for recommendations as to their use in field plantings.

The program also includes charting the approximate boundaries of the range (habitat) of all valuable species to facilitate the planting of those types which are most adapted to the control of erosion and the areas where they are to be used.

The retirement of eroding and erodible land to trees is primarily carried on east of the Great Plains and to a lesser extent on the Pacific Coast where moisture conditions are favorable to tree growth. The nurseries supply planting stock for an annual tree-planting program of approximately a half billion trees. Stock of both local and adapted species not generally grown are produced in the nurseries. An attempt is made to furnish suitable stock for most adaptable plantings under a wide range of site factors.

C-6. Technical Cooperation with Emergency Conservation Work (CCC) Camps and Other Federal and State Agencies.--This work involves the furnishing of technical supervision and planning services to other Federal and non-Federal agencies, including CCC camps engaged in soil-conservation activities. The Act of April 27, 1935 authorizing the establishment of the Soil Conservation Service provides that "the Secretary of Agriculture from now on shall coordinate and direct all activities with relation to soil erosion." This provision of the Act makes it incumbent upon the Service to cooperate with other agencies in directing and coordinating erosion-control activities. By furnishing technical direction and supervision, the Soil Conservation Service makes it possible for other agencies to conduct and adjust their operations in such a manner as to accomplish control of erosion without additional operating expense to the Federal Government.

Cooperation with Other Federal Agencies

Consistent effort is made to assist other Federal agencies in carrying out their soil-conservation activities in accordance with the above policy of cooperation. The two Federal agencies with which, under this financial project, cooperation has heretofore been maintained and will continue to be maintained during 1938 are Emergency Conservation Work (CCC) camps and the Bureau of Indian Affairs of the Department of the Interior.

The work of a large number of Emergency Conservation Work (CCC) camps has been placed under the supervision of the Soil Conservation Service. The operations of these camps constitute an important factor in the national program of the Service. The Service is responsible for supervising the work of these camps in the interest of effectiveness and economy. The failure of camps to carry out the most effective type of work will directly reflect upon the national program of the

Service. Funds available from ECW sources for operation of the camps are inadequate to furnish sufficient technical supervision to permit the application of the type of coordinated erosion-control program carried out by the Service in its demonstration project areas. The Budget estimates for the fiscal year 1938, therefore, include $932,250 (same amount available in 1937) to provide for furnishing the equivalent of one technician to each ECW camp under the supervision of the Service which is not operating on a demonstration project area.

The Bureau of Indian Affairs supervises large areas of Indian land subject to serious erosion, the prevention of which is the responsibility of the Federal Government. The Bureau of Indian Affairs has authority to establish and enforce soil-conserving land-management plans, including measures for the control of overgrazing, and has available considerable ECW labor which may be used in carrying out soil-conservation operations. Many communities of Indians also are willing to contribute labor and materials for the control of erosion on lands upon which they are dependent. By using these resources the Bureau of Indian Affairs is able to control erosion on relatively large areas with the Soil Conservation Service furnishing a relatively small number of technical supervisory and planning personnel. Without the cooperation of the Service in preparing basic plans, however, the Bureau of Indian Affairs would be unable effectively to apply its resources in the control of erosion, and the result would be the use of available labor on less productive work and the ultimate necessity for much larger expenditures by the Federal Government for the protection or rehabilitation of Indian lands.

Cooperation with State Agencies and Voluntary Soil Conservation Associations, Counties, and Similar Organizations

In addition to cooperative work with Federal organizations, the Soil Conservation Service furnishes technical assistance to non-Federal agencies, principally the State agricultural extension services and voluntary soil-conservation associations within States. Through cooperation with State and county extension agencies, it is possible for the Soil Conservation Service, with a relatively small expenditure, to obtain wide dissemination of information regarding the extent of erosion and methods of control. The major item of expense involved in this type of cooperation is a portion of the salaries paid one or more technical employees in each important State. These employees must be thoroughly acquainted with the erosion problem and control techniques and must have had experience in contacting farmers, county agents, and other agricultural leaders.

In cooperating with voluntary soil-conservation associations, the Soil Conservation Service furnishes technicians from its project areas to assist such associations in planning appropriate soil-conservation measures for individual farms. The expenses involved in putting these measures into practice are borne individually or cooperatively by members of the association and the assistance of the Soil Conservation Service is limited to technical aid.

EMERGENCY FUNDS

Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
National Industrial Recovery, Interior, Soil Erosion Prevention (transferred to Agriculture)		
C-1. Conservation surveys to determine the extent and distribution of erosion	$31,571	---
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions	157,219	---
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government	6,808	---
C-5. Operation of erosion nurseries for the propagation of plants, for use in soil and moisture conservation operations	32,333	---
C-6. Technical cooperation with Emergency Conservation Work (CCC) camps and other Federal and State agencies	1,476	---
Total, N.I.R. Funds	229,407	---
National Industrial Recovery, Agriculture Plant Industry (transferred to Soil Conservation Service)		
C-5. Operation of erosion nurseries for the propagation of plants, for use in soil and moisture conservation operations	9,380	$26,805
Public Works Administration, Allotment to Interior, Soil Erosion Prevention (transferred to Agriculture):		
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions	638,765	---
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government	475,324	---

Projects	Obligated, 1936	Estimated obligations, 1937
Public Works Administration, Allotment to Interior, Soil Erosion Prevention (transferred to Agriculture) - Continued.		
C-5. Operation of erosion nurseries for the propagation of plants, for use in soil and moisture conservation operations.....	$85,698	---
C-6. Technical cooperation with Emergency Conservation Work (CCC) camps and other Federal and State agencies.....	---	$218,200
Total, P.W.A. Funds.....	1,199,787	218,200
Emergency Relief Appropriation Act, 1935 (Administrative Expenses):		
C-1. Conservation surveys to determine the extent and distribution of erosion.....	763,285	144,194
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions.....	1,849,398	576,201
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government.....	423,933	63,000
C-5. Operation of erosion nurseries for the propagation of plants, for use in soil and moisture conservation operations.....	97,264	57,093
C-6. Technical cooperation with Emergency Conservation Work (CCC) camps and other Federal and State agencies.....	455,257	118,754
Total, Emergency Relief, 1935 (Administrative Expenses).....	3,589,137	959,242
Emergency Relief Appropriation Act, 1935 (national program of soil conservation):		
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions.....	13,450,985	1,217,128
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government.....	2,788,937	161,193
C-5. Operation of erosion nurseries for the propagation of plants, for use in soil and moisture conservation operations.....	276,172	113,582

Projects	Obligated, 1936	Estimated obligations, 1937
Emergency Relief Appropriation Act, 1935 (national program of soil conservation): -- Continued.		
C-6. Technical cooperation with Emergency Conservation Work (CCC) camps and other Federal and State agencies.....	$1,566	---
Total, Emergency Relief, 1935 (national program of soil conservation).....	16,517,660	$1,491,903
Total, Emergency Relief Appropriation Act, 1935 (all).....	20,106,797	2,451,145
Emergency Relief, Appropriation Act, 1936 (national program of soil conservation):		
C-2. Soil and moisture conservation operations by means of demonstration projects in agricultural and erosion regions.....	---	1,468,620
C-3. Soil and moisture conservation operations on watersheds largely owned or controlled by the Government.....	---	224,200
Drought relief projects.....	---	2,985,000
Total, Emergency Relief, 1936...	---	4,677,820
Puerto Rico Trust Fund, Sugar Processing Taxes (authorized by sec. 15-f, Agricultural Adjustment Act, as amended):		
Soil-erosion survey in Puerto Rico.....	7,208	-----
Agricultural Adjustment Administration (Payments for Agricultural Adjustment):		
C-1. Conservation surveys to determine the extent and distribution of erosion in Puerto Rico.....	2,359	72,433
Total, Emergency Funds (Direct Allotments).....	21,554,938	7,446,403

EMERGENCY FUNDS

(Complete Bureau Statement)

(1) Direct Allotments

Projects	Obligated, 1936	Estimated obligations, 1937
National Industrial Recovery, Interior, Soil-Erosion Prevention (transferred to Agriculture): Soil-erosion control, operations, demonstrations, and information...	$311,572	$22,070
National Industrial Recovery, Agriculture, Plant Industry (transferred to Soil Conservation Service): For construction of erosion-control nurseries for growing soil-protecting trees, bushes, and other plants.....	9,380	26,805
Public Works Administration, Allotment to Interior, Soil-Erosion Prevention (transferred to Agriculture): Soil-erosion control, operations, demonstrations, and information.....	1,271,787	307,936
Emergency Relief Appropriation Act, 1935:		
Administrative expenses.....	5,085,803	1,378,282
National program of soil conservation.....	17,428,271	2,003,927
Emergency Relief Appropriation Act, 1936: National program of soil conservation.....	-----	4,755,000
Puerto Rico Trust Fund, Sugar Processing Taxes:		
Soil-erosion surveys in Puerto Rico.....	7,208	-----
Agricultural Adjustment Administration (Payments for Agricultural Adjustment): Conservation surveys to determine extent and distribution of erosion in Puerto Rico..	2,359	72,433
Total.....	24,116,380	8,566,453

(2) Indirect Allotments

Project	Obligated, 1936	Estimated obligations, 1937
Emergency Conservation Work (authorized by Act of March 31, 1933, as amended; financed through War Department): Work of Civilian Conservation Corps in connection with erosion-control and other soil-conservation projects.....	$20,224,951	$9,362,000

PASSENGER-CARRYING VEHICLES

Correction in Limitation Estimate.

Through inadvertence, the limitation on the amount recommended to be available in 1938 for the purchase of passenger-carrying vehicles in the field service of the Soil Conservation Service was not revised when the final Budget tables were compiled. The limitation figure of $189,512 as now stated, is in error, and should be reduced to $124,286.

For the same reason, the tabular statement of motor vehicles as originally submitted is corrected to read as follows:

SOIL CONSERVATION SERVICE

Appropriation	For purchase: New vehicles (motors unless otherwise indicated)		For purchase: Old vehicles to be exchanged		For purchase: Net cost of new cars	Old vehicles still to be used	Total maintenance, repair, and operation, all cars
	Number	Gross cost	Number	Allowance (estimated)			
D.C.							
General administrative expenses.....	1	$1,500	--	----	$1,500	----	$600
Field							
Soil and moisture conservation investigations.....	27	15,158	23	$3,300	11,858	33	17,765
Soil and moisture conservation operations, demonstrations, and information	271	143,202	201	30,774	112,428	885	410,209
Total, field	298	158,360	224	34,074	124,286	918	427,974
Total, D.C. and field	299	159,860	224	34,074	125,786	918	428,574

1. Field Work

The authorization for the purchase of passenger-carrying vehicles for field activities of the Soil Conservation Service outside the District of Columbia contemplates an increase of $61,786 ($62,500 in 1937; $124,286 estimated for 1938) for this purpose. This $124,286 will permit the needed replacement of 224 vehicles, at a net average cost of $382 each when exchange allowances are taken into account, and the purchase of 74 additional vehicles, at an average cost of $530 each.

The 74 additional cars will be required in connection with regional and State offices, research stations, and new work concerned with demonstration projects, technical cooperation with voluntary soil-conservation associations, and conservancy districts. They will be used by supervisory and technical personnel who are required to do much rural travel and inspecting. These men will work in connection with offices not yet fully organized or on projects not yet started. Unless automobiles can be provided, the employees will have to either use common carriers or personally owned cars on a mileage-allowance basis. The common carrier is not well suited to this work, which is generally performed in areas where public transportation is inadequate. Under the circumstances, the use of the new cars will result in economy and increased efficiency in this work.

The automobile is indispensable for the proper conduct of the Bureau's varied activities in the conduct of soil-conservation work throughout the country. The purchase and operation of Government-owned cars has been found from experience to be more economical than either the hiring of commercial cars or the use of personally-owned cars of employees on a mileage basis. Records kept over a series of years by various agencies indicate that the average per-mile cost of a Government-owned car, figuring in the purchase price and all operating and maintenance expenses up to the time it is turned in as no longer serviceable and then deducting the exchange allowance, is approximately 3 cents. On the other hand, the cost of hiring personally-owned cars averages about 5 cents per mile, and for hiring commercial cars from 10 to 15 cents per mile.

With the exception of a few cars which have been operated over exceedingly rough country or which developed serious mechanical defects after a comparatively short period of use, none of the cars to be replaced in 1938 are of a model more recent than 1935 and a considerable number of them date back to 1934. These machines have been operated under practically all conditions of use, ranging from city streets to extremely rough desert and forest trails. Their condition is such that by 1938 they will be no longer economical to operate, and it is in the best interests of the work to turn them in during the fiscal year 1938, as herein provided.

2. District of Columbia

A clause has been added to the final (or "Total") paragraph of the Soil Conservation Service section of the estimates authorizing the use from bureau funds of not to exceed $1,500 for the purchase of one passenger-carrying automobile for use in the District of Columbia. This automobile would be used by the Chief of the Service and his immediate associates in connection with the attendance at conferences and meetings of various committees, such as the Great Plains Drought

Committee and the Water Resources Committee, and in visiting the main building of the Department of Agriculture and the various buildings of the Soil Conservation Service. The Soil Conservation Service is now operating in ten different buildings widely separated throughout the business section of Washington. It is necessary for the Chief and his staff not only to maintain contact with the work in these Service buildings but also to keep in very close touch with the office of the Secretary of Agriculture and other bureaus in the Department in still additional locations. Frequently it is necessary for the Chief to attend conferences at locations considerably distant from the headquarters of the Soil Conservation Service and to take several members of his staff with him. On other occasions, he requires transportation from one committee meeting to another accompanied by officials of other bureaus. In connection with these varied activities, the convenience and avoidance of delay will fully justify the purchase of a passenger-carrying vehicle. This will parallel authority already granted to the Forest Service, the Bureau of Public Roads, and the Agricultural Adjustment Administration for the purchase, operation, and maintenance of one passenger-carrying vehicle each in the District of Columbia.

CONSERVATION AND USE OF AGRICULTURAL LAND RESOURCES, DEPARTMENT OF AGRICULTURE

Appropriation, 1937 (Sec. 2 of Act of March 19, 1936 -- Independent Offices Appropriation Act, 1937). . . . . $440,000,000 (a)
Budget Estimate, 1938 . . . . . 440,000,000 (b)

(a) In addition, Sec. 2 of the Act of March 19, 1936 made available for the purposes of this appropriation $30,000,000 provided under "Payments for Agricultural Adjustment" by the Supplemental Appropriation Act, 1936; making a total of $470,000,000 available for 1937.
(b) In addition, the estimates for 1938 authorize the expenditure for the purposes of the Soil Conservation and Domestic Allotment Act of $10,000,000 of the funds made available by Sec. 32 of the Act of August 24, 1935 and $50,000,000 of the unexpended balance of the $100,000,000 fund provided by Sec. 12(a) Title I, of the Agricultural Adjustment Act of May 12, 1933; making a total of $500,000,000 available for 1938.

PROJECT STATEMENT

Projects	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938	Increase or decrease
Conservation and use of agricultural land resources (total obligated).	$6,049,590	$463,950,410	$500,000,000	+$36,049,590(1)
1937 appropriation obligated in 1936 under immediately available authority	- 6,049,590	+ 6,049,590	- - - -	- 6,049,590
Transferred from "Payments for Agricultural Adjustment" pursuant to Sec. 2, Act of March 19, 1936 (49 Stat., p. 1183).	- -	-30,000,000	- - - -	+ 30,000,000
Transfers (submitted) from: Sec. 32, Act of Aug. 24, 1935 (U.S.C., Supp. I, title 7, sec. 612c).	- -	- -	- 10,000,000	- 10,000,000
Sec. 12(a), Agricultural Adjustment Act of May 12, 1933 (U.S.C., Supp . I, title 7, sec. 612)	- -	- -	- 50,000,000	- 50,000,000
Total appropriation. .	- -	440,000,000	440,000,000	- -

(1) No increase is estimated for in the actual appropriation, the figure remaining at $440,000,000--the amount appropriated for 1937. The increase of $36,049,590

in working funds, which arises out of the adjustments shown in the foregoing Project Statement, consists of:

(a) An increase of $36,367,294 for the Agricultural Adjustment Administration to provide for additional payments to agricultural producers cooperating in the agricultural conservation program. Payments in the drought areas during the fiscal year 1937 will need to be materially increased in the fiscal year 1938 for encouragement of the planting of soil-conserving crops and the replacement of perennial and biennial legumes killed by the drought in those areas. Increased participation on the part of dairymen and fruit and vegetable producers is also anticipated in connection with the program for these producers. Additional funds also will be needed for range-improvement practices. These practices will be applicable to an increased area and ranchmen will have a much longer period for carrying out range-improvement practices than in the first agricultural conservation program.

Although producers in the Northeastern States participated in the first agricultural conservation program to a much greater extent than in the commodity production-adjustment programs, it is anticipated that participation will increase still further as the program is further adapted to the needs of that area and the producers in those States become more fully informed regarding its purposes and benefits.

(b) A decrease of $325,704 in the allotment to the Extension Service for county-agent supervision. This reduction will be made possible by the taking over by the Agricultural Adjustment Administration's personnel of a greater part of the supervisory activities heretofore performed by the county extension agents in connection with the agricultural conservation program.

(c) An increase of $8,000 in amount necessary to be transferred to the Office of the Treasurer of the United States, for the handling of increased work in connection with payments to be made under the conservation program contemplated by the estimates.

CHANGES IN LANGUAGE

The language of this item, which is carried currently as section 2 of the Independent Offices Appropriation Act, fiscal year 1937, has been amended:

(1) To eliminate reference to the $30,000,000 which was made available from the appropriation of $296,185,000 provided for "Payments for Agricultural Adjustment" in the Supplemental Appropriation Act, fiscal year 1936.

(2) To insert reference to the $10,000,000 which is made available from the appropriation for the fiscal year 1938 by section 32 of the Act of August 24, 1935 and the $50,000,000 which is made available from the $100,000,000 appropriation provided by section 12(a) of the Agricultural Adjustment Act of May 12, 1933.

(3) To eliminate the words "to be immediately available", which applied to the 1937 appropriation but will not need to be continued in the 1938 language.

(4) To change the applicable years as required and to amend the statute reference.

(5) To provide that the funds appropriated by section 32 of the Act of August 24, 1935 shall be available during the fiscal year 1938 for administrative expenses in connection with the work authorized by said section 32, including the employment of persons and means in the District of Columbia and elsewhere in accordance with the provisions of law applicable to the employment of persons and means by the Agricultural Adjustment Administration. This authority is necessary in that no specific provision was made in section 32 for administrative expenses in connection therewith. During the fiscal year 1937 funds available under section 12(a) of the Agricultural Adjustment Act are being used for this purpose.

WORK UNDER THIS APPROPRIATION

This appropriation is used for carrying into effect the agricultural conservation program, which has for its objects (1) the preservation and improvement of soil fertility; (2) promotion of the economic use and conservation of land; (3) diminution of exploitation and wasteful and unscientific use of natural soil resources; (4) the protection of rivers and harbors against the results of soil erosion to aid in maintaining the navigability of waters and water courses and in flood control; and (5) the reestablishment, at as rapid a rate as is determined to be practicable and in the general public interest, of the ratio between the purchasing power of the net income per person on farms and that of the income per person not on farms that prevailed during the five-year period August, 1909 to July, 1914, inclusive, by making fair and reasonable payments or grants of other aid to agricultural producers, including tenants and share-croppers, measured by (1) their treatment or use of their land or a part thereof for soil restoration, soil conservation, or the prevention of erosion, (2) changes in the use of their land, and (3) a percentage of their normal production of any one or more designated agricultural commodities which equals that percentage of the normal national production of such commodity or commodities required for domestic consumption; by offering payments to those farmers who meet specified conditions for shifting land from soil-depleting crops to soil-conserving crops and for carrying out approved soil-building activities. The Agricultural Adjustment Administration has been designated by the Secretary as the agency responsible for carrying the provisions of the Act into effect.

The funds provided by this appropriation are subject to allotment by the Secretary of Agriculture, pursuant to section 11 of the Soil Conservation and Domestic Allotment Act approved February 29, 1936 (49 Stat., pp. 1148-1152). Under this authority allocations have been made to the Agricultural Adjustment Administration and to a number of the other bureaus within the Department of Agriculture and to other Government agencies called upon to assist in various ways to facilitate the agricultural conservation program. The agencies utilized and the allotments to each are shown in the following table:

Agencies	Obligated, 1936	Estimated obligations, 1937	Estimated obligations, 1938	Increase or decrease
Agricultural Adjustment Administration	$5,914,934	$460,161,953	$496,529,247	+$36,367,294
Office of the Secretary . . .	- - -	475,520	475,520	- - -
Office of the Solicitor . . .	- - -	105,500	105,500	- - -
Office of Information	- - -	13,720	13,720	- - -
Extension Service	75,000	879,704	554,000	- 325,704
Forest Service.	- - -	172,500	172,500	- - -
Bureau of Agricultural Economics	58,081	692,073	692,073	- - -
General Accounting Office . .	- - -	714,440	714,440	- - -
Bureau of the Census (Department of Commerce)	1,575	- - -	- - -	- - -
Office of the Treasurer (Treasury Department)	- - -	85,000	93,000	+ 8,000
Division of Disbursement (Treasury Department) . . .	- - -	650,000	650,000	- - -
Total.	6,049,590	463,950,410	500,000,000	+36,049,590

MISCELLANEOUS

(a) INTERCHANGE OF APPROPRIATIONS

This paragraph permits transfers, within the limitations indicated by the language thereof, between the appropriations within any bureau, division, or office. It has been carried in the bill for many years, and constitutes an absolutely essential administrative arrangement, especially when emergencies arise. As required in the proviso, a statement of the transfers made under this authority during the past fiscal year is inserted in the Budget under this item.

(b) WORK FOR OTHER DEPARTMENTS

Under this item and section 601 of the Economy Act of June 30, 1932 (U.S.C., title 31, sec. 686), the Department of Agriculture renders services, such as inspections, analyses, and tests of food and other products, to other Government agencies upon request, with transfer of appropriations to the Department of Agriculture in such amounts as may be necessary for the performance of the work. Services of the character indicated are rendered to the Army, Navy, Marine Corps, Veterans' Administration, Post Office Department, and other Government agencies. In this way the most advantageous use is made, for the benefit of the Government as a whole, of the various services which the Department of Agriculture is in position to render if payment can be made therefor.

(c) PASSENGER-CARRYING VEHICLES

The general authorization for the maintenance, operation, and repair of motor-propelled and horse-drawn passenger-carrying vehicles is continued for the next fiscal year. Specific limitations on expenditures for purchase of such motor vehicles appear in the text pertaining to the several bureaus requiring purchase of such vehicles.

(d) BELTSVILLE RESEARCH CENTER

Appropriation Act, 1937	$75,000
Budget Estimate, 1938	85,000
Increase	10,000

PROJECT STATEMENT

Project	1936	1937 (Estimated)	1938 (Estimated)	Increase
Beltsville Research Center ..	$74,525	$75,000	$85,000	+$10,000 (1)
Unobligated balance	475	- - -	- - -	- - -
Total appropriation ..	75,000	75,000	85,000	+ 10,000

INCREASE

(1) An increase of $10,000 for the development of approximately five miles of additional low-cost roads at Beltsville Research Center. No facility provided to the research projects at the Center so vitally affects the welfare of all these operating units as do good roads. During the winter months, under present conditions, transportation costs are enormously increased due to the absence of adequate highways and, furthermore, the essential sequence of important experimentation is frequently endangered thereby. The original roads in the area have never been improved, except for minor maintenance, and, in consequence, they are becoming more unsatisfactory each year. Because of their improper location, the cost of improving these roads is greater than would be the outlay required for new construction. In addition, the old roads do not properly serve the units of work conducted at Beltsville and their use materially increases the distances to be traversed. By using local materials almost exclusively, it will be possible with the $10,000 increase recommended to make a material contribution to this urgently needed facility.

WORK UNDER THIS APPROPRIATION

This appropriation provides for the development and maintenance of general physical facilities required for the research activities of eight bureaus of the Department of Agriculture and two units of the Department of Commerce located at the Beltsville Research Center, including roads, water, power, telephone, sewage disposal, fire protection, and general guard and patrol service. In addition, the problems of business management and general operation, inter-bureau activities affecting general management, maintenance, and operation, and public relations matters are handled by the Center organization.

Centralized management and control of these various facilities provide major economies in their maintenance and operation and permit their development in accordance with general Department interests. Consolidated purchase of electric power and distribution over a Government-owned system reduce the cost an average of about sixty percent. Practically all the units are served by a general water system. This results in a material reduction in water costs and, what is probably more important, furnishes fire protection on a scale impossible to secure from individual installations. The fire-fighting unit equipped with motor driven pumps, hose, and essential accessories is operated by the central organization under a "volunteer" fire-fighting type of organization. A consolidated telephone system services practically all of the units with greater facility and at lower costs than would be possible with individual service. The modern sewage disposal system provides a degree of sanitation and protection impossible to secure in any other way and, in addition, produces a byproduct in the form of sludge valuable for fertilizer purposes. Adequate roads constitute an invaluable facility, and their development can only be accomplished by central management. For the direct benefit of the units operating on the Center a central mechanical service, a building cleaning service, a farm operation service, and special guard and patrol services are provided.

The expenses incident to the maintenance and operation of the common facilities of the Beltsville Research Center are paid entirely from this appropriation, but the cost of work performed at the Center for the direct benefit of particular bureau projects is reimbursed from the bureau funds appropriated for such purposes. The consolidation of these service operations makes it possible to avoid the duplication of personnel and equipment and produces consequential economies in production costs.

PASSENGER-CARRYING VEHICLE

The estimates provide authorization for the purchase of one passenger-carrying automobile at $600, in replacement of a car purchased in 1930. This car is used by the members of the supervisory staff in making necessary visits to the various units operating on the Center for the purpose of inspecting and supervising maintenance, development, and repair work being carried on and also for the transportation of skilled workmen and laborers whose services are required during the work day. Because of the size of the Center property, work may be in progress at distances up to five miles from headquarters. To supervise these activities without tremendous loss of time and consequently prohibitive expenditures, motor-vehicle transportation is essential. This is also true in connection with the transportation of workers required for emergency service or for periods of less than a day. Because of the extremely hard usage incident to the operation of the present vehicle over rough roads and trails, it is now in very poor condition and the estimated cost of essential repairs is in excess of the justifiable expenditure.

(e) INTERNATIONAL PRODUCTION CONTROL COMMITTEES

This item continues the authority contained in the Agricultural Appropriation Act, enabling the Secretary of Agriculture to expend not to exceed $10,000 annually from Agricultural Adjustment Administration funds to cover United States membership expenses of the International Wheat Advisory Committee or like bodies concerned with the reduction of agricultural surpluses, etc. An allotment of $4,000 has been made for this purpose for each of the fiscal years 1937 and 1938 from the appropriation "Salaries and Expenses, Agricultural Adjustment Administration".

The continuation of this authorization is recommended to make clear that the appropriations under the Agricultural Adjustment Act are available for paying the share of the United States in, and the expenses of sending representatives to, international committees and similar bodies concerned with matters relating to the reduction of production of agricultural commodities or other international cooperation necessary in connection with carrying out the crop-adjustment programs. Despite the fact that restriction of production and regulation of exports under the International Wheat Advisory Committee are inoperative for the present, continued cooperation of the United States with the committee is considered of great value. The Secretariat of the International Wheat Advisory Committee is now engaged in a world study of the reasons for changes in wheat consumption and of methods for increasing consumption of wheat. The achievement of this object would naturally be of considerable benefit to the United States.

(f) ELIMINATION OF DISEASED CATTLE, DEPARTMENT OF AGRICULTURE

Appropriation Act, 1937	- - -	
Reappropriation of part of unobligated balance of $150,000,000 in Jones-Connally Act funds provided by Act of May 25, 1934	$21,364,000	
Reappropriation of unobligated balance of $10,000,000 provided for 1936 by Sec. 37 of Act of Aug. 24, 1935	8,119,135	
	29,483,135	
Less estimated unobligated balance of above funds on June 30, 1937	5,119,135	
Total working funds for 1937		$24,364,000
Budget Estimate, 1938:		
Reappropriation of unobligated balance of funds available in 1937, as shown above ...	5,119,135	
Reappropriation of part of unobligated balance of $150,000,000 in Jones-Connally Act funds, provided by Act of May 25, 1934, and reappropriated by Sec. 37 of Act of Aug. 24, 1935	10,744,865	
Total working funds for 1938		15,864,000
Decrease in working funds		8,500,000

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Decrease
Elimination of diseased cattle:				
1. Eradicating tuberculosis in cattle (a)	$5,922,677	$2,500,000	$1,500,000	-$1,000,000(1)
2. Combating Bang's disease in cattle	14,534,938	14,214,000	14,214,000	- - -
3. Combating mastitis in cattle	486,558	- - -	- - -	- - -
4. Experimentation in diseases of cattle	27,620	150,000	150,000	- - -
Total	20,971,793	16,864,000	15,864,000	-1,000,000
Removal of surplus agricultural products:				
5. Purchase of dairy products .	3,000,000	7,500,000	- - -	-7,500,000(2)
6. Purchase of cattle	312,651	- - -	- - -	- - -
Total	3,312,651	7,500,000	- - -	-7,500,000
Total working funds ...	(b)24,284,444	24,364,000	15,864,000	-8,500,000

(a) Additional amounts obligated for tuberculosis eradication under regular appropriations of Bureau of Animal Industry -- 1936, $1,636,817; 1937 (estimated), $1,500,000; 1938 (estimated), $1,603,000.
(b) Includes $22,403,579 in Jones-Connally Act funds and $1,880,865 provided by Section 37 of Act of August 24, 1935.

AUTHORIZATIONS FOR AND STATUS OF FUNDS

The second paragraph of the Act of May 25, 1934 (U.S.C., title 7, Secs. 612 and 612a) appropriated $150,000,000 pursuant to the $250,000,000 authorization contained in sections 2 and 6 of the Act of April 7, 1934, known as the Jones-Connally Act, for the elimination of diseased cattle and the purchase and removal of surplus dairy products and cattle.

Section 37 of the Act of August 24, 1935 (U.S.C., Supp. I, title 7, Sec. 612b) authorized a total appropriation of $40,000,000 to enable the Secretary of Agriculture to eliminate diseased cattle, including cattle suffering from tuberculosis and Bang's disease, and to make payments to owners with respect thereto; for scientific experimentation and efforts to eradicate disease in cattle; and for the purposes of the Act of April 7, 1934 (Jones-Connally Act), including removal of surplus products. Of this $40,000,000 authorization, $10,000,000 was actually appropriated by the Act of August 24, 1935.

Obligations, reappropriations, and unobligated balances of these funds, totaling $160,000,000, are set forth in the following table:

	Jones-Connally Act	Section 37 of Act of August 24, 1935	Total
Obligated, fiscal year 1934 ...	$863,024	--	$863,024
" " " 1935 ...	94,003,647	--	94,003,647
" " " 1936 ...	22,403,579	$1,880,865	24,284,444
Estimated obligations, fiscal year 1937	21,364,000	3,000,000	24,364,000
Estimated obligations, fiscal year 1938	10,744,865	5,119,135	15,864,000
Unobligated balance	620,885	--	620,885
Total	150,000,000	10,000,000	160,000,000

DECREASES

The $8,500,000 reduction in working funds for these activities in 1938, as compared with 1937, includes:

(1) A decrease of $1,000,000 for eradicating tuberculosis in cattle. It is estimated that $1,500,000 will be sufficient (taken in connection with regular Bureau of Animal Industry funds) for operating expenses and indemnity payments in order to continue in 1938 the necessary tuberculosis eradication work, including the testing of cattle throughout the United States, together with retests of herds when such action is deemed necessary.

(2) A decrease of $7,500,000 for the purchase of surplus dairy products. No provision is made under this heading for the purchase of surplus dairy products during 1938.

CHANGES IN LANGUAGE

(1) The statute references and the applicable year have been corrected.

(2) Language has been inserted, inapplicable language has been deleted, and the words "as one fund" added for purpose of clarity in connection with the authorization for use in 1938 of the unobligated balances under Jones-Connally Act and Section 37 funds which were reappropriated and carried forward for 1937 by the Agricultural Appropriation Act for the fiscal year 1937; and making available for 1938 $10,744,865 of the remaining unobligated balance of the $150,000,000 appropriation under the Jones-Connally Act.

(3) The words "other purposes" have been changed to "experimentation", since, with the deletion from this appropriation item of the funds for the removal of surpluses, the work on experimentation is the only remaining activity which may also be carried on with these funds.

WORK UNDER THIS APPROPRIATION

General.--The purpose of this work, which is carried on by the Bureau of Animal Industry, is the elimination of diseased dairy and beef cattle and scientific experimentation to eradicate diseases in cattle. While the fund is expended principally for the elimination of cattle affected with Bang's disease (contagious abortion), work on the elimination of tuberculous cattle is also being continued on a scale to assure that there will be no retrogression from the gains already made throughout the country.

(1) Eradicating Tuberculosis in Cattle.--The Budget estimates (all sources) provide as follows for eradicating tuberculosis in cattle:

Source of funds	Obligated, 1936	Estimated, 1937	Estimated, 1938
Regular appropriation, Bureau of Animal Industry	(a) $1,636,817	$1,500,000	$1,603,000
Reappropriation of unobligated balances of funds appropriated by Jones-Connally Act and Section 37 of Act of August 24, 1935	5,922,677	2,500,000	1,500,000
Total	7,559,494	4,000,000	3,103,000

(a) Total appropriation, $2,603,116; unobligated balance, $966,299.

This activity consists of a nation-wide campaign, in cooperation with the States, under a uniform plan to eliminate bovine tuberculosis. The States and livestock owners have looked to the Federal Government for leadership in this work since its inauguration and desire that this assistance be continued, as many failures occurred when independent efforts were employed. Approximately $4,500,000 was appropriated in 1936 by the various States to assist in this campaign.

Emergency funds were first made available in 1935 in order to bring about the elimination of tuberculosis more quickly than it could be accomplished by the use of the regular appropriations available for this purpose. This has been done by greatly expanding and intensifying the campaign. However, the peak of this work was reached in 1935 and necessary expenditures since that time have been decreasing each year, the estimate for 1938 being $1,000,000 below the allotment for 1937. The work consists of administering the tuberculin test to cattle to determine whether they are affected with tuberculosis and the removal of the reactor animals. All animals classified as reactors are disposed of by slaughter under Federal or State supervision. Owners are compensated in part for the animals destroyed, in accordance with rules and regulations prescribed by the Secretary of Agriculture.

(2) Combating Bang's Disease in Cattle (All the work on this project is conducted under this special appropriation.)--The first nation-wide effort to eliminate this malady, which in recent years has become one of major economic importance both to the dairy and beef cattle industries, was made during 1935 under an allotment to the Bureau of Animal Industry by the Agricultural Adjustment Administration from funds provided by the Jones-Connally Act. The work is now well established, being in operation to some extent in every State in the Union. In many States the project has assumed large proportions. The object of this work is to aid the cattle producers in freeing their cattle from Bang's disease (contagious abortion). This is accomplished by eliminating cattle which react to the blood test for the disease. The work is conducted cooperatively in the various States and is voluntary on the part of the owners, those desiring to participate signing an agreement with the Secretary which specifies the conditions under which animals are to be tested, how the herd is to be handled, and the disposition to be made of reactors. The work consists of collecting blood samples from cattle in herds submitted for the test by owners, the testing of samples in the field and in laboratories to determine whether the animals are reactors to the test, and the removal of reacting animals from the herd. These reacting animals are disposed of by slaughter under Federal or State supervision. Owners are compensated in part for the animals destroyed, in accordance with rules and regulations prescribed by the Secretary of Agriculture.

(3) Experimentation in Diseases of Cattle.--This activity was started in 1936 under funds authorized by Section 37 of the Act of August 24, 1935. The work consists of experiments on the control of a number of important cattle diseases, including Bang's disease, mastitis, and anaplasmosis. The project also includes the testing of alleged remedies for Bang's disease. The funds are used for necessary equipment, purchase of experimental animals, and operating expenses.

(g) FOREST ROADS AND TRAILS

Appropriation Act, 1937	$8,000,000
Budget Estimate, 1938	14,000,000(1)
Increase	6,000,000

(1) The 1938 estimates for Forest roads and trails are included in the Budget under the section "General Public Works Program", pages 119-121.

Section 5 of the Act of June 18, 1934 (48 Stat., page 993) authorized an appropriation of $10,000,000 for forest roads and trails for each of the fiscal years 1936 and 1937. The Act of June 16, 1936 authorized an appropriation of $14,000,000 for each of the fiscal years 1938 and 1939. The $8,000,000 appropriated in the Agricultural Appropriation Act for 1937 included $3,500,000, the balance of the amount authorized for the fiscal year 1936, and $4,500,000, part of the $10,000,000 authorized for 1937, leaving $5,500,000 of the latter authorization for later appropriation. The $14,000,000 estimated for 1938, therefore, includes $5,500,000 to complete the 1937 authorization of $10,000,000 and $8,500,000 to apply towards the authorization of $14,000,000 for 1938 above referred to.

PROJECT STATEMENT

Project	1936	1937 (Estimated)	1938 (Estimated)	Increase
Forest roads and trails..	$7,082,600	$8,000,000	$14,000,000	+$6,000,000(1)

INCREASE

(1) The increase of $6,000,000 in this item will be used to pay contractual obligations incurred in 1937 and maturing during 1938.

It is estimated that an appropriation of $14,000,000 will be needed in the fiscal year 1938 to meet obligations which will accrue during that year. While consisting of increments involving both 1937 and 1938, this amount coincides with the amount of the authorization for the fiscal year 1938 as provided by the Act of June 16, 1936.

CHANGES IN LANGUAGE

The paragraph for Forest roads and trails carried in the Budget for 1938 continues the language contained in the Agricultural Appropriation Act for 1937 with the following amendments:

(1) The citations of fiscal years and amounts pertaining to the authorization by fiscal years have been changed to make the language appropriate for the fiscal year 1938.

(2) A clause has been inserted to provide for the immediate availability of the entire amount of the appropriation, to make certain that an adequate amount of cash will be available to meet obligations which accrue in the fiscal year 1937.

(3) Two provisos have been stricken from the language heretofore carried in this paragraph because the directions contained therein are included in the Act of June 16, 1936, which requires the Secretary of Agriculture to apportion and prorate the 1938 authorization for forest roads and trails and authorizes him to approve projects under any such apportionment and to incur obligations or enter into contracts thereunder.

(4) The limitation on the cost of any building purchased or constructed under this authorization, which has been carried for several years at "not to exceed $2,500", is recommended to be increased to $7,500. The need for equipment depots of adequate size and design to house and repair heavy road-building equipment is a pressing one and should be provided for in the 1938 Appropriation Act. To do this, however, will be impossible under the present building limitation of $2,500.

(5) The amount in the proviso limiting the expenditures for forest highways in Alaska has been changed from $250,000 to $350,000. The present limitation of $250,000 applies only to the current year's appropriation, whereas the $350,000 limitation proposed for 1938 is made to apply not only to the current year's appropriations but also to similar appropriations made for prior years.

(6) A new proviso has been added to the end of the paragraph making available $10,000 from this appropriation for the acquisition of land and $150,000 for the acquisition or construction of buildings, for the storage and repair of Government equipment for use in the constuction and maintenance of roads. Under this authority it is proposed to construct warehouse buildings to replace temporary buildings at Missoula, Montana, and the rented space in temporary buildings at Juneau, Alaska, and for the purchase of land. Permanent structures have been provided to house equipment depots of the Bureau of Public Roads at Vancouver, Washington; Government Island, California; Ogden, Utah; and Denver, Colorado.

WORK UNDER THIS APPROPRIATION

This appropriation is made for forest roads and trails under the provisions of Section 23 of the Federal Highway Act of November 9, 1921. It is divided into two parts--the Forest Highway fund and the Forest Road Development fund. The Forest Highway fund is expended for roads necessary to the forests but of primary importance to the States, counties, or communities within, adjoining, or adjacent to the national forests in the highway systems of the States. The Forest Road Development fund is appropriated and expended for roads, truck trails, and trails of primary importance to the administration, protection, and utilization of the national forests.

The construction and maintenance of Forest Development truck trails and trails are subordinated to the requirements of the fire-control job of the Forest Service. All members of the Forest Development survey, maintenance, and construction crews are subject to call for fire duty at all times, day or night. They are a back log for the regular fire-guard force, who are paid from the appropriation for National Forest Administration and for many forest areas constitute the sole fire-protection force exclusive of year-long employees. Construction projects are selected which will give the best possible placement of man power in bad fire country. Maintenance work is scheduled to coincide with the fire season and to open up areas of serious fire danger first. All crews are equipped with fire-fighting tools and emergency rations, are tied in by telephone or radio with forest supervisor's or ranger's offices, and are given training in fire-suppression methods in advance of the beginning of the fire season. Every one of these crews are called on to assist in fire suppression from one to scores of times in a season.

The Act of June 16, 1936 provides that one-third, but not less than $3,000,000, of the appropriation made for any fiscal year for forest roads and trails for carrying out the provisions of Section 23 of the Federal Highway Act of 1921 may hereafter be expended for Forest Road Development projects. The balance of the appropriation would be applied to Forest Highway projects.

EMERGENCY FUNDS

Direct Allotments

Projects	Expended, 1936	Estimated expenditures, 1937
Emergency Appropriation Act, 1935 (forest roads and trails, emergency construction):		
Forest highways	$3,710,592	$1,014,447
Forest road development	590,666	101,195
Total, Emergency Appropriation Act, 1935	4,301,258	1,115,642
National Industrial Recovery (Public Works Allotments):		
Construction of national-forest highways	1,481,188	317,030
Construction of national-forest roads, trails, bridges, and related projects	281,430	11,552
Total, Nat. Ind. Recovery (P.W.A.)	1,762,618	328,582
Total, Emergency Funds (Direct Allotments)	(a)6,063,876	(a)1,444,224

(a) These figures show expenditures during the years mentioned. As a matter of fact, the funds were obligated prior to the fiscal year 1936.

(h) PAYMENTS TO EMPLOYEES IN FOREIGN COUNTRIES

Out of special appropriations made to the State Department, allotments of $88,300 for 1936 and $80,000 for 1937 were made to the Department of Agriculture for carrying into effect the provisions of the Act of March 26, 1934 authorizing annual appropriations to meet losses sustained by offices and employees of the United States in foreign countries due to the appreciation of foreign currencies in relation to the American dollar. Of the $88,300 allotment for 1936, $33,667 was turned back unused to the State Department, so that the actual amount used under this allotment was $54,633. It is expected that a part of the $80,000 allotment for 1937 will likewise remain unexpended, but it is impracticable to make an estimate of the unobligated balance at this time. The 1938 Budget includes an estimated allotment from this fund to the Department of Agriculture in the sum of $49,960.

(i) MISCELLANEOUS CONTRIBUTED FUNDS, DEPARTMENT OF AGRICULTURE

This account provides for miscellaneous contributed funds received by the Department of Agriculture from States, local organizations, individuals, etc., deposited in the Treasury of the United States, and made available for carrying out various cooperative agreements. The amounts obligated thereunder during the fiscal year 1936 and estimated for 1937 and 1938 are:

1936	$128,880
1937	135,000
1938	135,000

AGRICULTURAL ADJUSTMENT ADMINISTRATION

(a) EXPORTATION AND DOMESTIC CONSUMPTION OF AGRICULTURAL COMMODITIES, DEPARTMENT OF AGRICULTURE

Appropriation, 1937.....	$109,139,621
Budget Estimate, 1938.....	120,000,000
Increase.....	10,860,379

This is a permanent, annual appropriation, made by Section 32 of the Act approved August 24, 1935 (U.S.C., Supp. I, title 7, sec. 612c), which makes available for the purposes of that section each fiscal year an amount equal to 30 percent of the customs receipts of the preceding calendar year.

PROJECT STATEMENT

Projects	1936	1937 (Estimated)	1938 (Estimated)	Increase or decrease
Obligated:				
Programs to encourage exportation and domestic consumption of agricultural products by diversion of agricultural commodities and products thereof, etc.....	$15,811,741	$23,750,000	(1)	-$23,750,000(1)
Administrative expenses.	- - -	- - -	$980,000	+980,000(2)
Total.....	15,811,741	23,750,000	980,000	-22,770,000
1936 unobligated balance made available in 1937 for transfer to Treasury Department (Bureau of Internal Revenue) for administrative expenses and tax refunds, pursuant to Sec. 915 of the Act approved June 22, 1936 (U.S.C., Supp.II, title 7, sec.657)	+33,000,000	-33,000,000	- - -	+33,000,000
Transferred to Treasury Department as per above...	- - -	+33,000,000	- - -	-33,000,000
Transferred to "Administrative Expenses" pursuant to Act of Feb. 11, 1936 (49 Stat., p.1118).....	+300,000	- - -	- - -	- - -
Transferred to "Cotton Price Adjustment Program" pursuant to Act of Feb. 11, 1936 (49 Stat., p.1117)..	+43,000,000	- - -	- - -	- - -

Project	1936	1937 (Estimated)	1938 (Estimated)	Increase or decrease
Transferred to "Conservation and Use of Agricultural Land Resources"...	- - -	- - -	+$10,000,000	+$10,000,000
Reserve.....	- - -	+$85,389,621	+109,020,000	+ 23,630,379
Total appropriation...	$92,111,741	109,139,621	120,000,000	+ 10,860,379(3)

(1) No advance estimate can be made at this time of programs to be undertaken in 1938 because of practical difficulties in forecasting commodity market emergencies, their extent, the effect of present programs and the rapidly changing supply conditions primarily due to weather and other natural hazards. Hence the 1938 "obligation" figure is arbitrarily left blank, showing as a reduction of $23,750,000. However, such part as may be necessary of the $109,020,000 shown as "reserve" for 1938 will be available in 1938 for carrying out the programs contemplated by Section 32 of the Act of August 24, 1935.

(2) Administrative expenses are being paid during 1937 from the appropriation made by section 12 (a) of the Agricultural Adjustment Act, but the estimates for 1938 contain new language, under the item for "Conservation and Use of Agricultural Land Resources", which will make section 32 funds available for carrying its own administrative expense charges. The amount estimated for 1938 is the same amount as the estimated obligations for this purpose during 1937.

(3) Section 32 of the Act of August 24, 1935 provides that an amount equal to 30 percent of the customs receipts of the preceding calendar year shall be available for the purposes of that section during each fiscal year. The increase of $10,860,379 estimated for 1938 is due to an estimated increase in customs receipts during the calendar year 1936.

Up to January 1, 1937 there have been approved surplus removal, export encouragement, and domestic allotment programs involving estimated obligations of $23,750,000 during the fiscal year 1937. These programs involve the diversion of surpluses of cattle, sheep, wheat, citrus fruit, and miscellaneous fruits and vegetables, the export encouragement and diversion of Northwest wheat, tobacco, coffee, and miscellaneous fruits, vegetables, and nuts, and domestic allotment payments to producers of flax.

Provision is made in the Budget schedules for administrative expenses, on the basis of the existing organization engaged in this work. During 1937 this organization is being paid from funds provided by Section 12(a) of the Agricultural Adjustment Act of May 12, 1933, but beginning with the fiscal year 1938 such charges will be made against Section 32 funds. New language to make section 32 funds available for administrative expenses in connection therewith is included in the item "Conservation and Use of Agricultural Land Resources."

WORK UNDER THIS APPROPRIATION

Under this appropriation programs have been formulated for (1) encouraging the exportation of agricultural commodities and products thereof by the payment of benefits in connection with the exportation thereof or of indemnities for losses incurred in connection with such exportation, or by payments to producers in connection with the production of that part of any agricultural commodity requir for domestic consumption; (2) encouraging the domestic consumption of such commodities or products by diverting them, through the payment of benefits or indemnities, or by other means from the normal channels of trade and commerce; and (3) reestablishing farmers' purchasing power by making payments in connection with the normal production of any agricultural commodity for domestic consumption.

(b) EXPORTATION AND DOMESTIC CONSUMPTION OF AGRICULTURAL COMMODITIES, DEPARTMENT OF AGRICULTURE (ADMINISTRATION, AGRICULTURAL ADJUSTMENT ADMINISTRATION), 1936

The Supplemental Appropriation Act of February 11, 1936 (49 Stat., p. 1118) provided for the availability of not to exceed $300,000 of the appropriation made for the fiscal year 1936 by Section 32 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes", approved August 24, 1935, for the administration of Section 32, including the employment of persons and means in the city of Washington and elsewhere. Under this authorization, $50,489 was actually obligated during the latter part of the fiscal year 1936.

(c) EXPORTATION AND DOMESTIC CONSUMPTION OF AGRICULTURAL COMMODITIES, DEPARTMENT OF AGRICULTURE (COTTON PRICE ADJUSTMENT)

The Supplemental Appropriation Act of February 11, 1936 (49 Stat., pp.1117, 1118) provided that so much as may be necessary of the amount appropriated for the fiscal year 1936 by Section 32 of the Act approved August 24, 1935 be made available, to remain available until expended, to enable the Secretary of Agriculture to make payments provided for in the 1935 cotton-price adjustment payment plan. Accordingly, $43,000,000 of the $92,111,741.47 appropriated by Section 32 for the fiscal year 1936 was made available for such administrative expenses and cotton adjustment price payments and of this amount $32,379,476 was obligated in 1936 and $10,620,524 in 1937.

This project was initiated prior to the Supreme Court decision (U.S. vs. Butler) and, because of its condition that the producer undertake to cooperate in the 1936 cotton adjustment program which became invalid by the Supreme Court decision, special legislation was necessary to carry out the project initiated. The purpose of this project was to assure the producers of cotton an average return of 12 cents per pound for their 1935 crop by an adjustment payment, not to exceed 2 cents per pound, on all cotton sold below 12 cents per pound, to the amount of the allotment to the farm under the Bankhead Cotton Act. These adjustment payments were conditioned upon the growers cooperating in the 1935 acreage adjustment program or agreeing to cooperate in the 1936 program.

(d) CONSERVATION AND USE OF AGRICULTURAL LAND RESOURCES, DEPARTMENT OF AGRICULTURE

This is the expenditure schedule covering allotments to the Agricultural Adjustment Administration, 1937, from the appropriation under this heading. The appropriation is discussed in its entirety in the estimates under the caption "Conservation and Use of Agricultural Land Resources, Department of Agriculture" (following the items for the Soil Conservation Service).

(e) PAYMENTS FOR AGRICULTURAL ADJUSTMENT, DEPARTMENT OF AGRICULTURE

The Supplemental Appropriation Act of 1936 appropriated, to be available until expended, $296,185,000 to meet all obligations and commitments, including salaries and administrative expenses theretofore incurred or to be incurred and rental and benefit payments in connection with adjustment contracts entered into prior to January 6, 1936, in which partial performance had been effected by the farmers and where applications for contracts were made prior to January 6, 1936 by farmers who had in good faith made adjustments in acreage and otherwise substantially complied with the requirements in connection with a crop program, regardless of whether contracts had been signed. This appropriation was necessary to complete the liquidation of moral obligations incurred under the production-adjustment programs which were initiated under the authority contained in Section 12 (b) of the Agricultural Adjustment Act and which were invalidated by the Supreme Court decision (United States vs. Butler).

An additional sum of not to exceed $700,000, or equal in amount to the unexpended balances of the (sugar tax) funds established by the President under authority of section 15 (f) of the Agricultural Adjustment Act, as amended, was appropriated to enable the Secretary of Agriculture, with the approval of the President, to complete the projects previously initiated for the benefit of agriculture in Puerto Rico and Hawaii. Under this $700,000 limitation, $697,948 was actually allotted.

The obligations and commitments under funds allocated directly to the Agricultural Adjustment Administration include rental and benefit payments with respect to cotton, wheat, corn, hogs, tobacco, sugar, peanuts, rice, and rye, the completion of programs for the removal of surplus wheat, hogs, and sugar, and administrative expenses including salaries, incurred directly in connection with the production-adjustment programs.

Of the $296,185,000 appropriated under this heading, $30,000,000 was transferred to and made available for the same purposes as the $440,000,000 appropriation made by Section 2 of the Act approved March 19, 1936 (49 Stat., p. 1183) for carrying into effect the provisions of the Soil Conservation and Domestic Allotment Act of February 29, 1936 (49 Stat., pp.1148-1152).

The manner in which the $296,185,000, together with the $697,948 for the benefit of agriculture in Puerto Rico and Hawaii, was utilized is shown by the following project statement:

PROJECT STATEMENT

Projects	1936	1937 (Estimated)
Obligated as follows:		
Agricultural and benefit payments	$155,256,050	$102,513,457
Removal of surplus agricultural products	5,222	308,778
Administration	(a) 4,155,792	(b) 2,423,776
Total, as above	159,417,064	105,246,011
Transferred:		
To "Payments under Tobacco, Cotton, and Potato Acts" (authorized by Act of March 14, 1936 - 49 Stat., p. 1163)	1,026,000	- - -
To "Administrative expenses, purchase and sale of seed" (authorized by Act of March 14, 1936 - 49 Stat., p. 1163)	42,825	- - -
To "Conservation and use of agricultural land resources, Department of Agriculture" (authorized by Act of March 19, 1936 - 49 Stat., p. 1183)	- - -	30,000,000
As an additional amount equal to unexpended balances of funds accruing from sugar processing tax collections previously established by the President under authority of Sec. 15 (f) of Agricultural Adjustment Act, as amended, to be spent for the benefit of agriculture in Puerto Rico and Hawaii, allotted as follows:		
Office of Experiment Stations:		
Puerto Rico: Experiments in the propagation and breeding of tropical plants, and studies of domestic animal parasites.	80,145	- - -
Hawaii:		
Taro investigations	40,572	- - -
Liver-fluke eradication	36,655	- - -
Rat-abatement campaign	109,019	- - -
Truck farming and improvement of marketing facilities	58,190	- - -
Development of livestock feed	69,883	- - -
Development of tropical fruits and nuts	49,596	- - -
Promotion of poultry industry	29,829	- - -
Bureau of Chemistry and Soils:		
Soil surveys in Puerto Rico	24,958	- - -
Soil surveys in Hawaii	5,229	- - -
Bureau of Entomology and Plant Quarantine:		
Insect pest survey in Puerto Rico	52,363	- - -
Fruit-fly control in Hawaii	66,717	- - -

Projects	1936	1937 (Estimated)
Transferred - Continued.		
Soil Conservation Service: Soil erosion survey in Puerto Rico.....	$74,792	- - -
Total, Sec. 15(f), A.A.A., substitute funds.....	697,948	- - -
Returned to surplus (amount estimated for Bureau of Internal Revenue being in excess of requirements), in accordance with provisions of Act of March 14, 1936 (49 Stat., p. 1163).....	453,100	- - -
1936 appropriation obligated in 1937.....	135,246,011	-$135,246,011
Total appropriation.....	296,882,948	- - -

(a) Including $1,326,741 transferred to other agencies.
(b) Including $180,025 transferred to other agencies.

(f) PAYMENTS FOR AGRICULTURAL ADJUSTMENT (PAYMENTS UNDER TOBACCO, COTTON, AND POTATO ACTS), DEPARTMENT OF AGRICULTURE, 1936 -- SEPTEMBER 1, 1936

The Act of March 14, 1936 (49 Stat., p. 1163) provides that so much as may be necessary, not to exceed $1,026,000, of the $296,185,000 appropriated by the Supplemental Appropriation Act, 1936, shall be available until September 1, 1936 for the redemption of tax-payment warrants under the Kerr Tobacco Act and for salaries and administrative expenses incurred on or before February 10, 1936 under the Kerr Tobacco Act, the Bankhead Cotton Act, and the Potato Act, which were repealed by the Act of February 10, 1936 (49 Stat., p. 1106); and also for the payment of such salaries and administrative expenses as may be incurred after February 10, 1936 as the Secretary of Agriculture and the Commissioner of Internal Revenue may deem necessary in order expeditiously to complete and preserve all the administrative records showing the various transactions and activities involved in the administration of aforesaid Acts, and, if no other funds are available, for salary and administrative expenses incurred on or before February 10, 1936 and thereafter for the purpose of completing the work relating to and liquidating, as soon as may be, the operation of the several cotton tax-exemption certificate pools established pursuant to regulations prescribed under the Bankhead Cotton Act. Transactions under this $1,026,000 fund are shown by the following project statement:

PROJECT STATEMENT

Projects	1936	1937 (Estimated)
Redemption of tax-payment warrants.....	- - -	$40,000
Administrative expenses in connection with liquidation of activities under the Kerr-Smith Tobacco Act, the Bankhead Cotton Act, and the Potato Act.....	$815,671	142,748
Estimated unobligated balance.....	- - -	27,581
Total allotment.....	815,671	210,329

(g) PAYMENTS FOR AGRICULTURAL ADJUSTMENT (ADMINISTRATIVE EXPENSES, PURCHASE AND SALE OF SEED), DEPARTMENT OF AGRICULTURE, 1936 -- SEPTEMBER 1, 1936

The Act of March 14, 1936 provides that not to exceed $42,825 of the $296,185,000 appropriated by the Supplemental Appropriation Act, 1936, shall be available until September 1, 1936 to complete the work of auditing vouchers and payment of freight bills in transactions entered into by the Secretary of Agriculture in connection with the purchase and sale of seed under the allocations to the Secretary of Agriculture authorizing the purchase and sale of seed for drought-relief purposes made pursuant to the Emergency Appropriation Act, fiscal year 1935. The work of auditing these bills for payment was completed by September 1, 1936. Obligations for 1936 and 1937 are shown in the Project Statement which follows:

PROJECT STATEMENT

Project	1936	1937 (Estimated)
Administrative expenses in connection with liquidating activities under the seed-purchase program conducted under allotment for "Loans and Relief in Stricken Agricultural Areas" (Emergency Appropriation Act, 1935).....	$9,895	$9,525
Estimated unobligated balance.....	- - -	23,405
Total allotment.....	9,895	32,930

(h) SALARIES AND EXPENSES, AGRICULTURAL ADJUSTMENT ADMINISTRATION

The sum of $100,000,000, to remain available until expended, was appropriated by Section 12 (a), title I, of the Agricultural Adjustment Act of May 12, 1933, as amended (U.S.C., Supp. I, title 7, sec. 612), to be available for administrative expenses under this title, for payments,authorized to be made

under Section 8, and for payments to cotton ginners for additional expenses incurred in connection with the administration of the Bankhead Cotton Act with respect to cotton ginned during the period of the duration of that Act authorized by Section 40 of the Act of August 24, 1935 (Public No. 320, 74th Congress).

Since the establishment of the Agricultural Adjustment Administration this fund has been used for general administrative expenses, legal work, marketing agreements, and other objects as shown by the following statement covering the entire period:

Projects	Obligations				
	1934	1935	1936	1937	1938
AAA Adm. Expense:					
General administration...	- - -	$1,580,120	$1,888,190	$1,442,608	$1,514,043
Marketing agreements.....	- - -	1,341,308	1,163,404	501,453	614,573
Protecting consumers' interests.....	- - -	183,757	166,147	162,500	162,500
Program planning.....	- - -	555,168	229,109	148,075	148,075
Information service.....	- - -	413,113	467,490	389,240	389,240
Headquarters administration of agricultural conservation program..	- - -	- - -	17,646	961,521	961,521
Administration of commodity purchase programs	- - -	- - -	- - -	980,000	- - -
Total, AAA Adm. Expense	2,519,158	4,073,466	3,931,986	4,585,397	3,789,952
Administrative Expense Incurred by Cooperating Bureaus of Department of Agriculture from AAA Funds Allotted:					
Office of Secretary.....	- - -	228,854	353,026	25,000	- - -
Office of Solicitor.....	- - -	608,746	451,955	327,980	327,980
Office of Information...	- - -	2,454	14,490	- - -	- - -
Library.....	648	1,317	4,128	3,240	3,240
Extension Service.....	6,516	14,000	8,400	11,640	11,640
Bureau of Animal Industry	- - -	- - -	975	- - -	- - -
Bureau of Plant Industry	1,832	- - -	- - -	- - -	- - -
Bureau of Agricultural Economics.....	47,226	117,553	213,786	98,757	82,977
Bureau of Home Economics	- - -	1,986	- - -	- - -	- - -
Total, Adm. Expense by Cooperating Bureaus of Agriculture.....	56,222	974,910	1,046,760	466,617	425,837
Administrative Expense Incurred by Other Cooperating Departments from AAA Funds Transferred:					
Federal Trade Commission	5,000	- - -	- - -	- - -	- - -
Department of Commerce (Census).....	- - -	- - -	6,463	- - -	- - -
Department of Justice...	- - -	- - -	71,419	- - -	- - -
Department of Labor (Labor Statistics)	6,024	5,766	4,486	- - -	- - -

Projects	Obligations				
	1934	1935	1936	1937	1938
Treasury Department--General Administration.	- - -	- - -	$ 3,000,000	- - -	- - -
Treasury Department--Division of Disbursement.....	1,404	- - -	- - -	- - -	- - -
Treasury Department--Customs.....	- - -	- - -	- - -	$12,000	$12,000
Treasury Department--Office of Treasurer....	- - -	- - -	- - -	12,500	12,500
Total, Adm. Expense by Other Cooperating Departments.....	$12,428	$5,766	3,082,368	$24,500	24,500
Grand Total, Adm. Expense.....	2,587,808	5,054,142	8,061,114	5,076,514	4,240,289
Payments to Cotton Ginners (Sec. 40, Act of August 24, 1935, Public No. 320, 74th Congress and Act of February 11, 1936, Public No. 440, 74th Congress, p. 91).....	- - -	- - -	- - -	2,583,365	- - -
Reappropriated:					
"International Wheat Advisory Committee", as authorized by Agricultural Appropriation Act.....	- - -	- - -	- - -	4,000	4,000
"Tobacco Compacts and Agreements among States" (U.S.C., Supp. II, title 7, Secs. 515-515K).....	- - -	- - -	- - -	300,000	- - -
"Marketing Agreements, Hog Cholera Virus and Serum," Bureau of Animal Industry (49 Stat., p.1617).....	- - -	- - -	- - -	30,000	30,000
"Sixth World's Poultry Congress" (49 Stat., p. 1568).....	- - -	- - -	- - -	18,000	- - -
"Soil Survey of the Hawaiian Islands", Bureau of Chemistry and Soils (49 Stat., p. 1617).....	- - -	- - -	- - -	15,000	- - -
"Salaries, Administrative Expenses, and Refunds of Taxes under Titles IV and VII of Revenue Act of June 22, 1936 (U.S.C., Supp. II, title 7, sec. 657)" (transfer to Bureau of Internal Revenue, Treasury Department).....	- - -	- - -	- - -	15,000,000	- - -
Total reappropriated, as above.....	- - -	- - -	- - -	15,367,000	34,000
Total obligations....(1)	2,587,808	5,054,142	8,061,114	23,026,879	4,274,289

Project	Obligations				
	1934	1935	1936	1937	1938
1934 appropriation obligated in 1933 and 1934(1)	(1) 2,587,808	- - -	- - -	- - -	+ 2,587,808
1934 appropriation obligated in 1935.....	- - -	5,054,142	- - -	- - -	+ 5,054,142
1934 appropriation obligated in 1936.....	- - -	- - -	8,061,114	- - -	+ 8,061,114
1934 appropriation obligated in 1937.....	- - -	- - -	- - -	23,026,879	+ 23,026,879
Unobligated balance.....	- - -	- - -	- - -	- - -	+ 6,995,768
Total appropriation.....	- - -	- - -	- - -	- - -	100,000,000

(1) Includes $17,374 obligated in 1933.

WORK UNDER THIS APPROPRIATION

This appropriation is provided by section 12 (a) of the Agricultural Adjustment Act, as follows:

> "Section 12 (a). There is hereby appropriated, out of any money in the Treasury not otherwise appropriated, the sum of $100,000,000 to be available to the Secretary of Agriculture for administrative expenses under this title and for payments authorized to be made under Section 8. Such sum shall remain available until expended."

The only expenditures which it is anticipated will be made from this appropriation for the fiscal year 1938 will be (1) those for administrative expenses in connection with activities of the Agricultural Adjustment Administration not affected by the Supreme Court decision (United States vs. Butler), (2) salaries of those employees of the Agricultural Adjustment Administration employed as of January 6, 1936, who are engaged in carrying out the provisions of the Soil Conservation and Domestic Allotment Act, and (3) $50,000,000 to be transferred to the appropriation "Conservation and Use of Agricultural Land Resources, Department of Agriculture" for payments to agricultural producers cooperating in the agricultural conservation program.

The principal activities of the Administration currently being financed from this appropriation include administrative supervision, formulation and administration of marketing agreements, protection of consumers' interests pursuant to the declared policy of Congress, administrative expenses incident to the determination of sugar quotas as provided by the Jones-Costigan Sugar Act, and the formulation and carrying into effect of a program of agricultural conservation under the Soil Conservation and Domestic Allotment Act.

The principal organization units of the Administration, the salaries and expenses of which are paid in whole or in part from this appropriation, include:

Office of the Administrator
Office of Business Management
Division of Consumers' Counsel
Division of Information
Division of Program Planning (headquarters salaries)
Division of Marketing and Marketing Agreements
Southern Division (headquarters salaries)
East Central Division (headquarters salaries)
Northeast Division (headquarters salaries)
North Central Division (headquarters salaries)
Western Division (headquarters salaries)

(i) TOBACCO COMPACTS AND AGREEMENTS AMONG STATES (TRANSFER FROM SALARIES AND EXPENSES, AGRICULTURAL ADJUSTMENT ADMINISTRATION), 1936-1938

The First Deficiency Appropriation Act, fiscal year 1936, approved June 22, 1936, authorized the use of $300,000 of the funds appropriated by Section 12 (a), Title I, of the Act of May 12, 1933, as amended (U.S.C., Supp. I, title 7, sec. 612), to remain available until June 30, 1938, to carry into effect the provisions of the Act approved April 25, 1936 (49 Stat., pp. 1239-1242), entitled "An Act relating to compacts and agreements among States in which tobacco is produced providing for the control of production of, or commerce in, tobacco in such States, and for other purposes". It is estimated that $112,000 of this allotment will be obligated in 1937 and $188,000 in 1938.

These funds will be used (1) to make advances to State commissions to cover administrative expenses incurred in the operation of compacts and of the State laws enacted pursuant to the Tobacco Compact Act; (2) to make loans to an association of producers operating in 1936 in the Georgia-Florida tobacco belt in connection with a program for stabilizing the marketing of tobacco in the belt in a manner similar to that which would be followed in States enacting laws and entering into compacts pursuant to this Act; and (3) for administrative expenses of the Department of Agriculture in connection with a program in Puerto Rico similar to that which would be followed in States producing cigar tobacco and enacting laws and entering into compacts pursuant to this Act.

Permanent Indefinite Appropriation

(j) ADVANCES TO AGRICULTURAL ADJUSTMENT ADMINISTRATION

Under the provisions of Section 12(b) of the Agricultural Adjustment Act of May 12, 1933, as amended by the Act of August 24, 1935 (U.S.C., Supp. I, title 7, sec. 612), the Secretary of Agriculture and the Secretary of the Treasury were required to jointly estimate from time to time the amounts, in addition to any money available under subsection 12 (a) of the Act of May 12, 1933, currently required for the purposes of the Agricultural Adjustment Act, as amended, and the Secretary of the Treasury was directed to advance to the Secretary of Agriculture out of any money in the Treasury not otherwise appropriated the amounts so estimated. The amount of any such advance was to be deducted from tax proceeds as should subsequently become available. The decision of the Supreme court on January 6, 1936 invalidated the use of advances in anticipation of

funds derived from processing taxes. The following project statement shows the expenditures from advances made under the authority of subsection 12 (b), from July 1, 1935 to January 6, 1936, inclusive.

PROJECT STATEMENT

Projects	July 1, 1935 to January 6, 1936
Effectuating adjustments in acreage or adjustments in production for market, or both	$143,034,461
Refunds of taxes	9,055,119
Administration (general)	10,165,041
Received by transfer from "Administration of Cotton Act of 1934"	- 433,540
Total obligations	161,821,081 (1)

(1) Includes funds transferred to the following agencies:

Department of Justice	$3,565
Bureau of Internal Revenue (Treasury Department)	11,021,893
Office of the Treasurer (Treasury Department)	54,358
Division of Disbursement (Treasury Department)	385,752
Customs Service (Treasury Department)	7,248
Extension Service	3,362,852
Bureau of Agricultural Economics	428,221
Total	15,263,889

(k) PROCEEDS FROM PROCESSING TAXES, AGRICULTURAL ADJUSTMENT ADMINISTRATION

Section 12 (b) of the Act of May 12, 1933, as amended by the Act of August 24, 1935 (U.S.C., Supp. I, title 7, sec. 612), provided that a sum equal to the proceeds derived from all taxes imposed under the Agricultural Adjustment Act, as amended, be appropriated and made available to the Secretary of Agriculture for the purpose of that Act. The decision of the Supreme Court on January 6, 1936, affecting the processing tax provisions of the Agricultural Adjustment Act, invalidated the subsequent use of funds derived from processing taxes, and this account will reflect processing taxes collected as of that date and covered into the Treasury to offset advances made to the Secretary of Agriculture as of that date.

An amount of $8,000,000 was warranted from this fund for the purchase of surplus beet sugar, as explained below under "Purchase of Surplus Sugar from Processing Taxes, Agricultural Adjustment Administration". The remaining proceeds from processing taxes are available, as required, to offset advances made to the Secretary of Agriculture pursuant to Section 12 (b) of the Act.

(1) PURCHASE OF SURPLUS SUGAR FROM PROCESSING TAXES, AGRICULTURAL ADJUSTMENT ADMINISTRATION

Under the provisions of Section 17 of the Act of May 9, 1934 (U.S.C., title 7, sec. 616), amending Section 16 of the Agricultural Adjustment Act of

May 12, 1933, the Secretary of Agriculture was authorized to purchase not to exceed 300,000 tons of sugar raw value from the surplus stocks of direct-consumption sugar produced in the United States beet-sugar area. In pursuance of this authority, $8,000,000 was advanced to the Secretary of Agriculture by the Secretary of the Treasury out of processing taxes, of which sum $365,536 was obligated during the fiscal year 1935. Of the unobligated balance of $7,634,464, expenditures aggregating $110,952 were made during the period July 1, 1935 to January 6, 1936. In view of the Supreme Court decision on the latter date affecting the Agricultural Adjustment Act, the further use of funds derived from processing taxes and the activities under this appropriation ceased.

(m) GENERAL EXPENSES, AGRICULTURAL ADJUSTMENT ADMINISTRATION (JONES-CONNALLY FUND)

The sum of $150,000,000 was appropriated by the Act of May 25, 1934 (U.S.C. title 7, secs. 612 and 612a), available until December 31, 1935, to carry out the provisions of the Jones-Connally Act entitled "An Act to amend the Agricultural Adjustment Act so as to include cattle and other products as basic agricultural commodities, and for other purposes", approved April 7, 1934 (U.S.C., title 7, secs. 611 and 612a), pursuant to the authorizations contained in sections 2 and 6 of said Act of April 7, 1934. This $150,000,000 appropriation consisted of (1) $100,000,000 to finance surplus reductions and production adjustments with respect to the dairy and beef-cattle industries, to carry out the purposes of sub-sections (a) and (b) of section 12 of the Agricultural Adjustment Act, and to support and balance the markets for the dairy and beef-cattle industries, and (2) a supplemental amount of $50,000,000 for the purchase of dairy and beef products for distribution for relief purposes, to eliminate diseased dairy and beef cattle, including cattle suffering from tuberculosis or Bang's disease, and to make payments to owners with respect thereto. A subsequent provision contained in Section 37 of the Act entitled "An Act to amend the Agricultural Adjustment Act, and for other purposes", approved August 24, 1935 (U.S.C., Supp. I, title 7, sec. 612b), continued the availability of these funds until June 30, 1936.

(See also item "Elimination of Diseased Cattle, Department of Agriculture", in Miscellaneous section of these estimates, in reference to reappropriation of the unexpended balance of these funds in the Agricultural Appropriation Act for 1937 and in the Estimates for 1938).

Transactions under this fund are shown in the following project statement:

PROJECT STATEMENT

Projects	1936
Removal of agricultural surpluses:	
Emergency cattle purchases	$312,651
Purchase of dairy and beef products for distribution for relief purposes	3,000,000
Eradication of diseases in cattle (Bureau of Animal Industry)	19,090,928
Total obligations	22,403,579
Transferred to "Elimination of Diseased Cattle, 1937", as authorized by the Agricultural Appropriation Act for 1937	21,364,000
Estimated unobligated balance	11,365,750(1
1935 appropriation obligated in 1934	863,024
1935 appropriation obligated in 1935	94,003,647
Total appropriation	150,000,000

(1) Amount estimated to be available for reappropriation in 1938 under Section 37 of the Act of August 24, 1935.

(n) ADVANCES TO DEPARTMENT OF AGRICULTURE UNDER TOBACCO ACT OF JUNE 28, 1934

Section 10 (a) of the Act of June 28, 1934, as amended by the Act of August 24, 1935 (U.S.C., Supp. I, title 7, sec. 760), authorized the Secretary of the Treasury to advance to the Secretary of Agriculture amounts not to exceed the estimated tax proceeds for four months against the proceeds derived from the tax under this Act, which were appropriated to be available to the Secretary of Agriculture for rental and benefit payments under the Agricultural Adjustment Act, as amended, to contracting producers, for administrative expenses, refunds of taxes, redemption of tax-payment warrants received by contracting producers subsequent to the sale of tobacco covered by said warrants and subsequent to payment of the tax imposed upon such sale by section 3 of this Act, and other payments under this Act. Such tax collections were estimated at substantially more than the expenses for administration of the Act. The Tobacco Act of June 28, 1934 was repealed by the Act of February 10, 1936 (49 Stat., p. 1106).

PROJECT STATEMENT

Project	July 1, 1935 to February 10, 1936, inclusive
General administration	$352,706 (1)

(1) Includes funds transferred to other Government agencies, as follows:

Bureau of Internal Revenue (Treasury Department)	$64,162
Extension Service	137,000
Total transfers	201,162

(o) ADMINISTRATION OF THE COTTON ACT OF 1934

The Act of May 25, 1934 (48 Stat., p. 805) provided that the funds available for carrying into effect the provisions of the Agricultural Adjustment Act, as amended, and the proceeds derived from the tax levied under the Bankhead Cotton Act of April 21, 1934, as amended, be appropriated and made available for administrative expenses and refunds of taxes under said Act of April 21, 1934, as amended, as well as for carrying out the cotton program of the Agricultural Adjustment Administration. The Act of April 21, 1934, as amended, was repealed by the Act of February 10, 1936 (49 Stat., p. 1106). Funds for this activity were provided by transfer from the appropriation "Advances to the Agricultural Adjustment Administration". The work of administering the Bankhead Cotton Act involved an extensive organization for the determination of production quotas, the distribution of tax-exemption certificates to producers, the identifying and tagging of tax-exempt cotton, and the collection of taxes by the Bureau of Internal Revenue. Obligations incurred during the fiscal year 1936 were as follows:

Project	July 1, 1935 to February 10, 1936, inclusive
Administration of the Cotton Act of 1934:	
Received from "Advances to Agricultural Adjustment Administration".....	$3,438,262 (1)

(1) Includes funds transferred to other agencies and activities, as follows:

Extension Service.....	$2,251,306
Bureau of Internal Revenue (Treasury Department).....	324,376
"Advances to Agricultural Adjustment Administration".	433,540
Total.....	3,009,222

(p) SPECIAL DEPOSITS (COTTON)

These schedules reflect financial transactions in connection with the acquisition and disposition of spot cotton and cotton-futures contracts by the Secretary of Agriculture, as provided for by part 1, title I, of the Agricultural Adjustment Act of May 12, 1933, as amended. All spot cotton and future contracts were sold or disposed of prior to January 1, 1937. Operations in connection with the liquidation of this program will be completed by about June 30, 1937.

Trust Accounts

(q) PROCEEDS, DISTILLED SPIRITS INDUSTRY, PARITY PAYMENTS

This item has been omitted from the 1938 Budget since the marketing agreement under which these funds were collected from distillers has been terminated and the amounts collected thereunder are being held pending decision of the Comptroller General as to whether or not these funds should be covered into the Treasury as miscellaneous receipts.

(r) NATIONAL SURPLUS COTTON TAX EXEMPTION CERTIFICATE POOL

This trust account provides for funds received under trust agreements entered into by certain cotton producers and the Secretary of Agriculture, authorized by Section 9 (d) of the Cotton Act of April 21, 1934, as amended. The Cotton Act of 1934 was repealed by the Act of February 10, 1936 (49 Stat., p. 1106), and all obligations in connection with the operation of the tax-exemption certificate pools are being liquidated.

(s) PUERTO RICO TRUST FUND (PROCESSING TAXES, SUGAR)

This fund provided for payments to contracting producers in connection with the adjustment of sugarcane production in Puerto Rico, payable from funds accruing from sugar processing-tax collections in Puerto Rico, authorized by Section 15 (f) of the Agricultural Adjustment Act, as amended (Puerto Rico Tax Fund Order No. 4, issued by Presidential proclamation April 24, 1935). The amount of the original fund was $2,250,000 and expenditures amounting to $1,560,197 had been made as of January 6, 1936, the date of the decision of the Supreme Court which invalidated the use of funds derived from processing taxes.

(t) ELIMINATION OF DISEASED CATTLE, DEPARTMENT OF AGRICULTURE

This item is discussed in the "Miscellaneous" section of the Estimates. It is proposed that the total estimate of $15,864,000 for the purposes of Section 37 of the Act of August 24, 1935, constituting the reappropriation of unexpended balances of Jones-Connally Act funds and funds provided by the said Section 37, be allotted to the Bureau of Animal Industry for the eradication of disease in cattle and for animal-disease experimentation.

EMERGENCY FUNDS

Direct Allotment

Project	Obligated, 1936
National Industrial Recovery Act: For administrative expenses in connection with histories of codes under jurisdiction of Secretary of Agriculture.....	$47,061

BOUND BY
HNM